

JVC

SERVICE MANUAL

PORTABLE COMPONENT SYSTEM

MODEL PC-200L/LB/LD



PC-200L



PC-200L/LB/LD

Contents

	Page		Page
Safety Precautions	2	Wiring Connections	21
Features	3	P.C. Board and Parts List	
Specifications	4	Amplifier P.C. Board	22
Names of Controls and Connection Terminals	5	Tuner, LED P.C. Board	25
Attaching and Detaching the Speaker	5	SEA, Power P.C. Board	27
Location of Main Parts	6	Mechanical Component Parts	28
Removal of Main Parts	7	Mechanical Component Parts List	29
Main Adjustment	10	Enclosure Assembly Parts	30
How to Engage Dial Cord	15	Enclosure Assembly Parts List	31
Block Diagram	16	Exploded View, Wiring Connection and	
Integrated Circuit	17	Parts List for Speakers	32
Standard Schematic Diagram (Amplifier Circuit)	19	Packing, Packing Parts List	33
Standard Schematic Diagram (Tuner Circuit)	20	Accessories	Back cover

Safety precautions

1. The design of this product contains special hardware. Many circuits and components specially for safety purposes.
For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. Electrical components having such features are identified by ⚠ on the schematics and parts list in Service manual.
The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list in Service manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and/or the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard.
When service is required, the original lead routing and dress should be observed, and they should be confirmed to be returned to normal, after re-assembling.

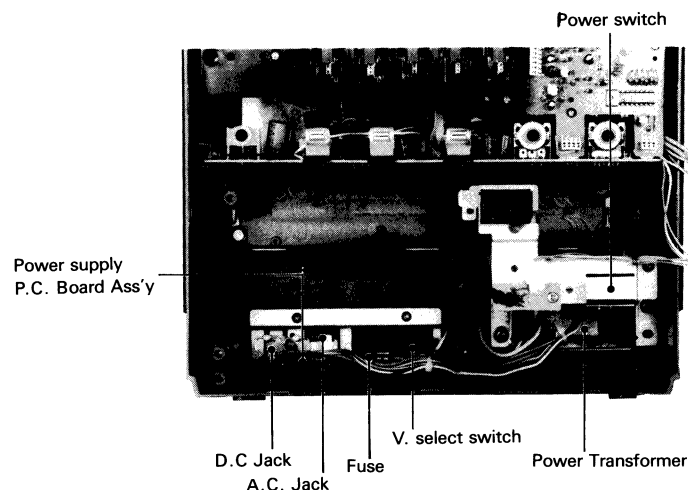
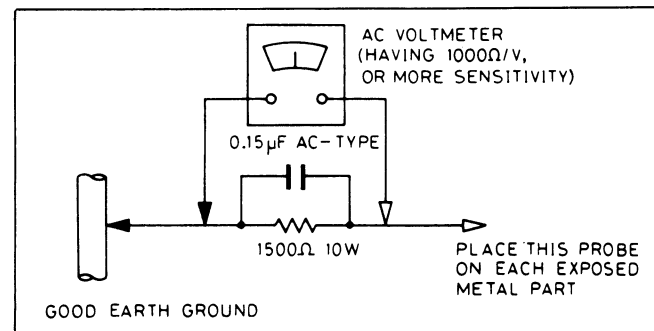
5. Leakage current check

(Safety for electrical shock hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the Products (antenna terminals, knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5 mA AC (r.m.s.).
- Alternate check method.
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1500 Ω 10 W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter.
Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Features

1. Complete stereo component system in a single box consisting of 3 units: a stereo cassette deck-receiver and a pair of speakers
2. "U-Turn" Auto-reverse with soft-touch mechanism
3. Metal tape playback capability
4. Built-in DOLBY* B noise reduction system
5. MUSIC SCAN mechanism
"Under license of Staar S.A., Brussels, Belgium"
6. Timer start mechanism
7. Total output of 30 W max. (15 W + 15 W) (6 Ω)
Music power of 70 W (35 W + 35 W) (6 Ω)
8. 5-element S.E.A. Graphic Equalizer
9. Headphones jack
10. LINE IN/PHONO jack provided
 - LINE IN/PHONO select switch
11. 2-way speaker system
12. 3-way power supply (AC, batteries and car battery)

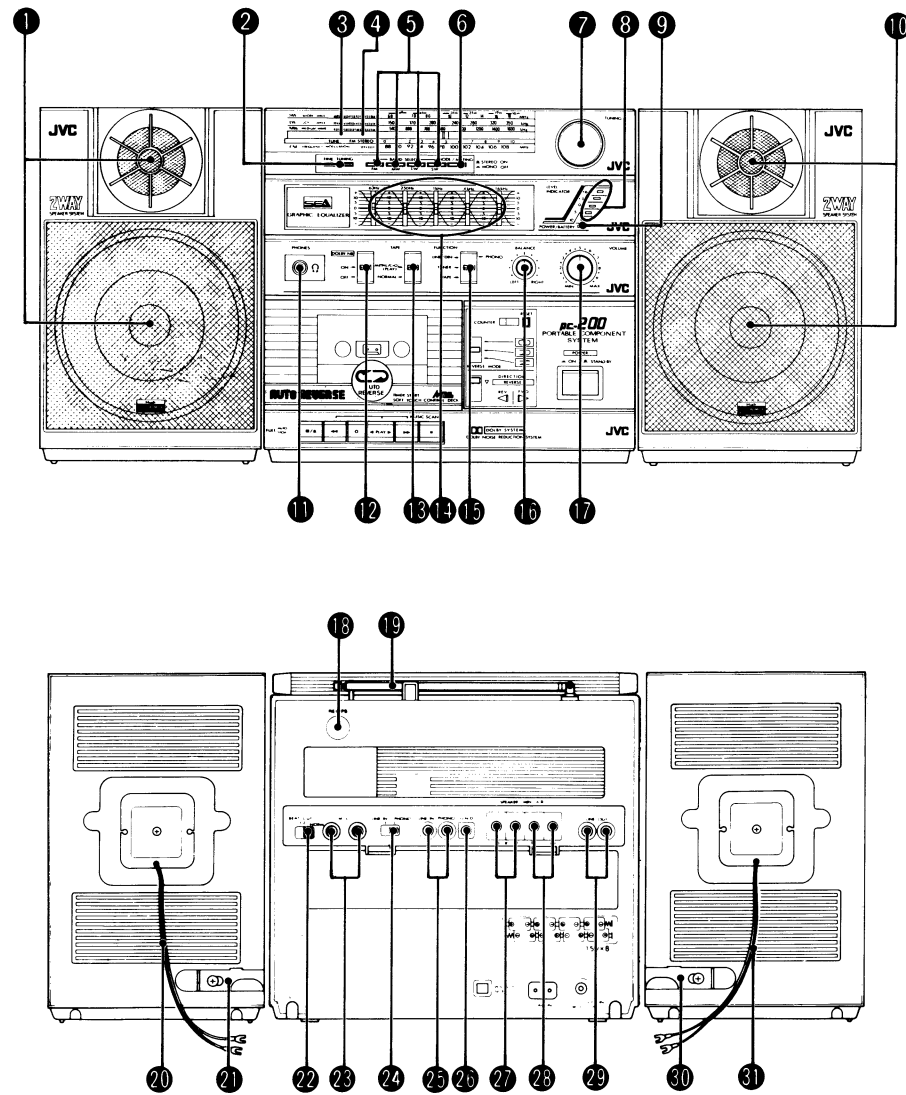
* Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation

* "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Specifications

Speakers	: 12 cm (5") (6 Ω) x 2, 5 cm (2") (6 Ω) x 2	Output jacks	: LINE OUT x 2 (300 mV/3.9 k Ω), SPEAKER x 2 Matching impedance; 6 Ω , PHONOES x 1 Output level; 3 mW/8 Ω , Matching impedance; 8–32 Ω
Frequency ranges	: FM 88 – 108 MHz AM 540 – 1600 kHz SW 1 2.3 – 7 MHz SW 2 7 – 22 MHz	Power output	: Max. 30 W (15 W + 15 W) (6 Ω) Music power 70 W (35 W + 35 W) (6 Ω)
Antennas	: Telescopic antenna for FM & SW Ferrite core antenna for AM & SW1	Power sources	: AC240/220/110V, 50/60 Hz DC 12 V ("R20" x 8) Ext. DC (car battery via optional CN-332 car adapter)
Track system	: 4-track 2-channel stereo	Power consumption	: 53 watts (with power switch on) 0.4 watt (with power switch off)
Motors	: Electronic governor DC motor for capstan	Dimensions	: 596(W) x 261(H) x 193(D) mm (23-1/2" x 10-3/8" x 7-5/8") including speakers, pads and knobs
Heads	: METAPERM head for recording/play-back 2-gap ferrite head for erasure	Weight	: Approx. 8.0 kg (17.6 lbs) with batteries Approx. 7.2 kg (15.8 lbs) without batteries
Frequency response	: 40 – 14,000 Hz (with normal tape)	Design and specifications are subject to change without notice	
Signal-to-Noise ratio	: 45 dB (weighted, at 1 kHz, 3% THD with normal tape) Improved by 5 dB at 1 kHz and by 10 dB at 5 kHz or more with DOLBY B NR ON		
Wow and flutter	: 0.08% (WRMS)		
Fast forward time	: Approx. 110 sec (C-60 cassette)		
Rewind time	: Approx. 110 sec (C-60 cassette)		
S.E.A. characteristics	: S.E.A. center frequencies; 63 Hz/250 Hz/1 kHz/4 kHz/16 kHz S.E.A. control range; ± 12 dB		
Input jacks	: 2, selectable between PHONO (1 mV/47 k Ω) and LINE IN (100 mV/47 k Ω) MIC x 2 Min. input level; 0.78 mV (–62 dBV) Matching impedance; 200 Ω – 2 k Ω Ext. DC IN (12 V)		

Names of Controls and Connection Terminal



- | | |
|---|---|
| ① Left speakers | ⑩ Right speakers |
| ② FINE TUNING knob for SW reception | ⑪ Headphone jack (PHONES) |
| ③ Tuning indicator (TUNE) | ⑫ DOLBY NR switch |
| ④ FM STEREO indicator | ⑬ TAPE switch |
| ⑤ BAND switch (FM/AM/SW1/SW2) | ⑭ SEA Graphic Equalizer controls |
| ⑥ MODE/MUTING switch
() STEREO/ON:
() MONO/OFF: | ⑮ FUNCTION switch
LINE/PHONO/TUNER/TAPE |
| ⑦ TUNING knob | ⑯ BALANCE control |
| ⑧ LEVEL indicator | ⑰ VOLUME control |
| ⑨ POWER/BATTERY indicator | ⑱ DIN Jack |
| | ⑲ Telescopic antenna for FM or SW reception |
| | ⑳ Speaker cord with terminal (Right) |
| | ㉑ Speaker lock lever (Right) |
| | ㉒ BEAT CUT switch |
| | ㉓ MIC jacks |
| | ㉔ LINE IN/PHONO select switch |
| | ㉕ LINE IN/PHONO jacks |
| | ㉖ GND (ground) terminal |
| | ㉗ SPEAKER (R) terminals |
| | ㉘ SPEAKER (L) terminals |
| | ㉙ LINE OUT jacks |
| | ㉚ Speaker lock lever (Left) |
| | ㉛ Speaker cord with terminals (Left) |

Attaching and Detaching the Speaker

When using the speakers attached to the receiver: When using the speakers detached from the receiver:

When using the speakers attached to the main unit

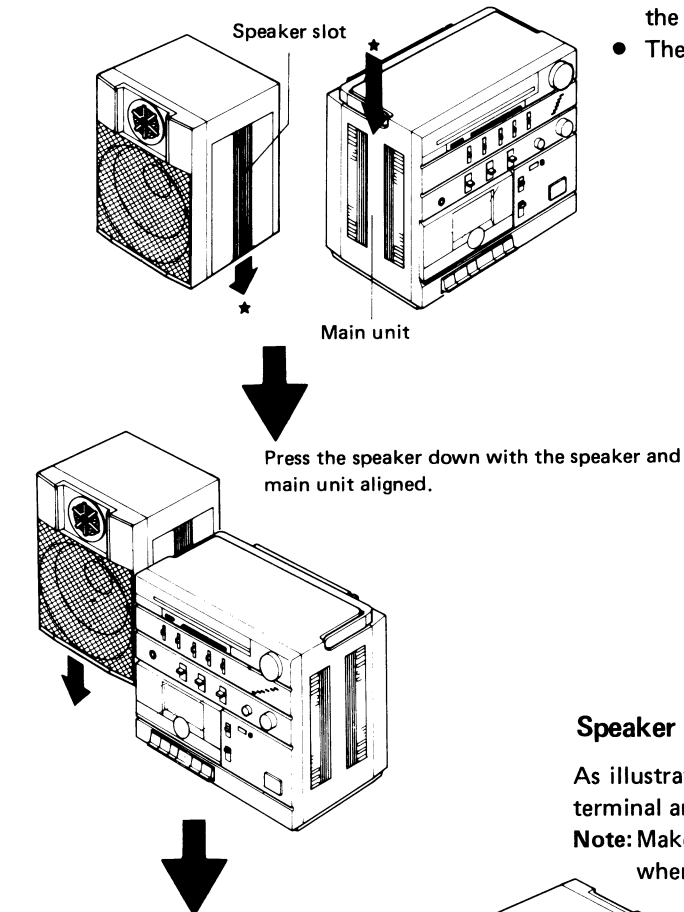
1. Hold with the bottom of the speaker against the top of the main unit and press down the speaker to attach it.

Note: Be sure to set the speaker lock lever to **RELEASE**.

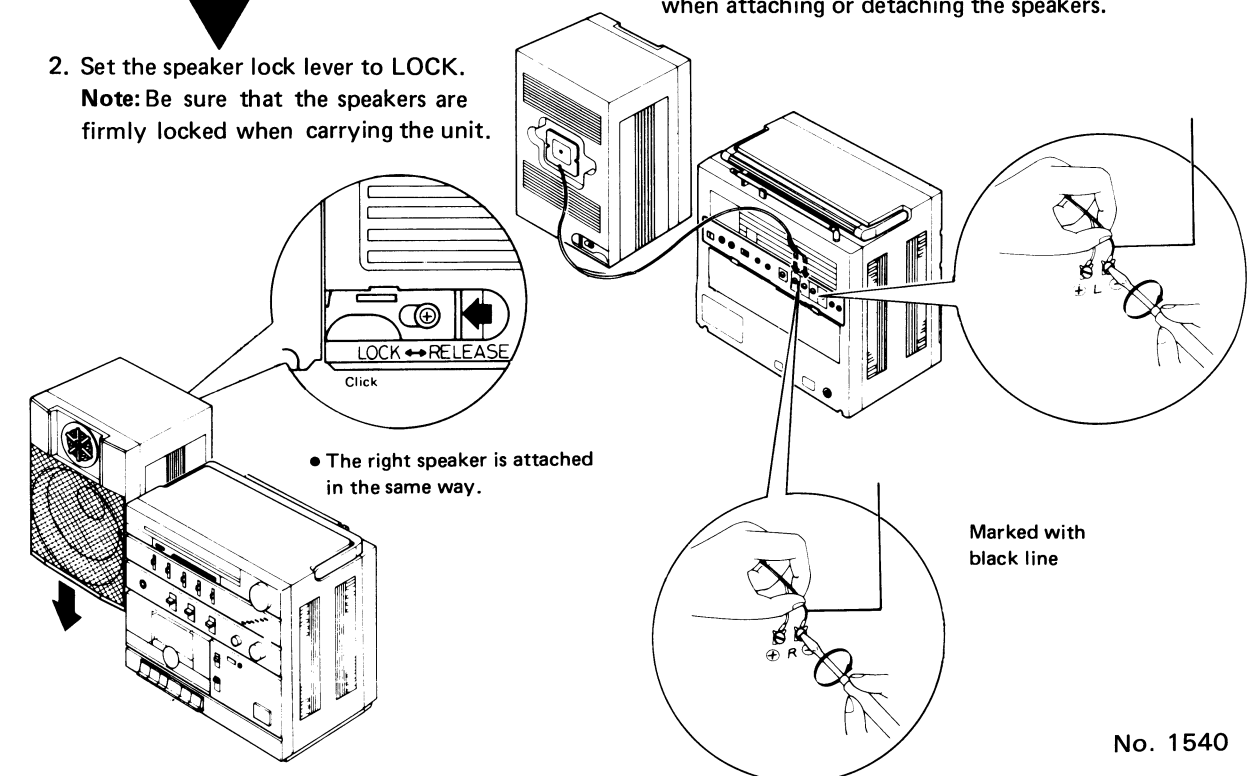
When using the speakers detached from the main unit

1. Set the speaker lock lever to **RELEASE**.
2. Lift the speaker to detach from the main unit.

- A better stereo effect can be obtained when the speakers are placed in an appropriate distance from the main unit.
- The right speaker is detached in the same way.



2. Set the speaker lock lever to **LOCK**.
Note: Be sure that the speakers are firmly locked when carrying the unit.



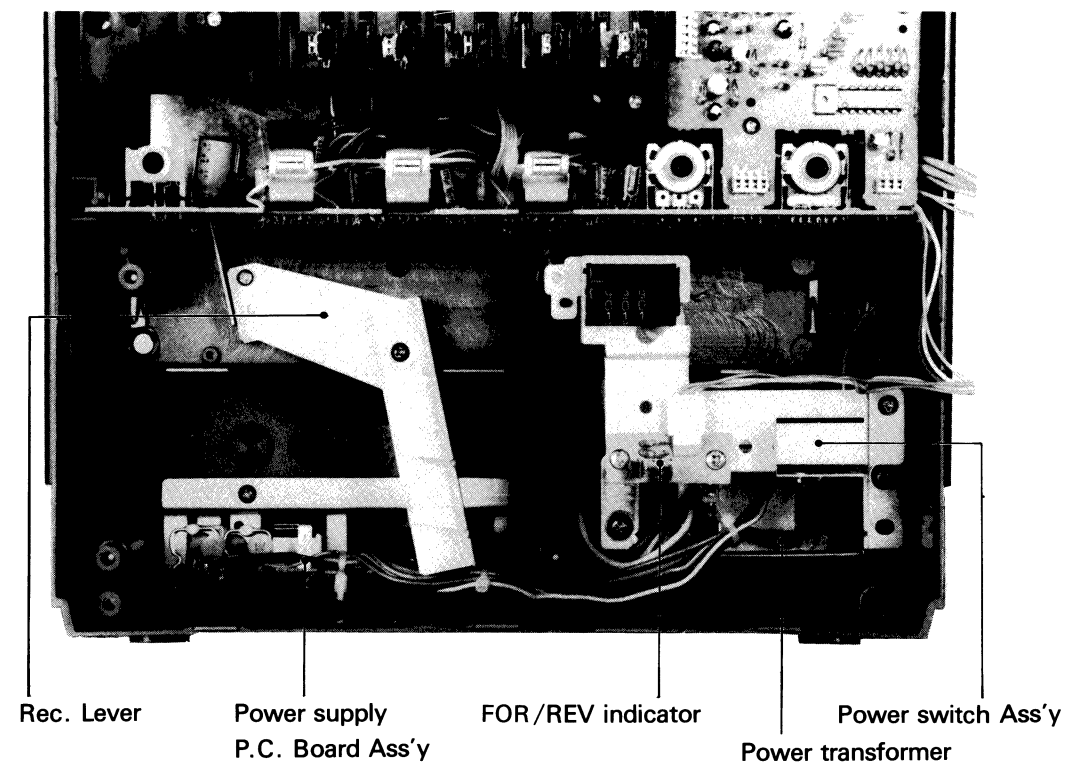
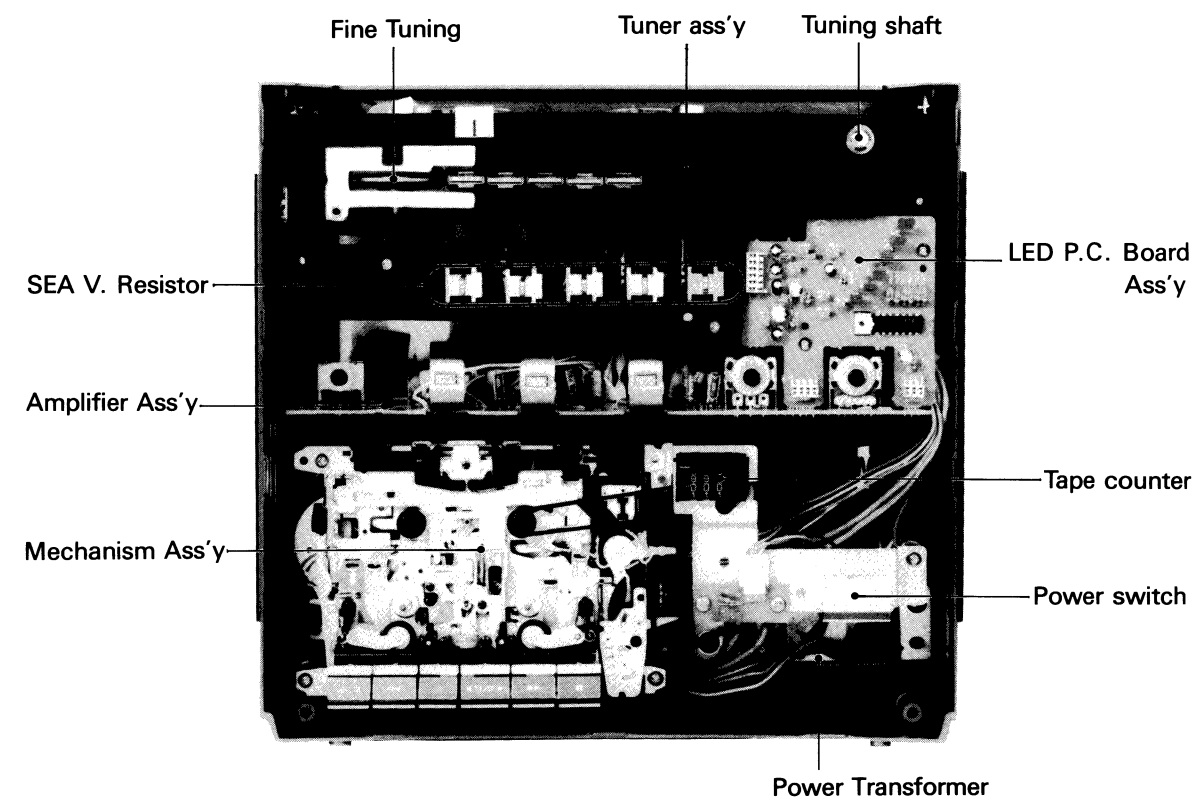
Speaker cord connections

As illustrated, insert (from above) the speaker cord into the terminal and fix securely.

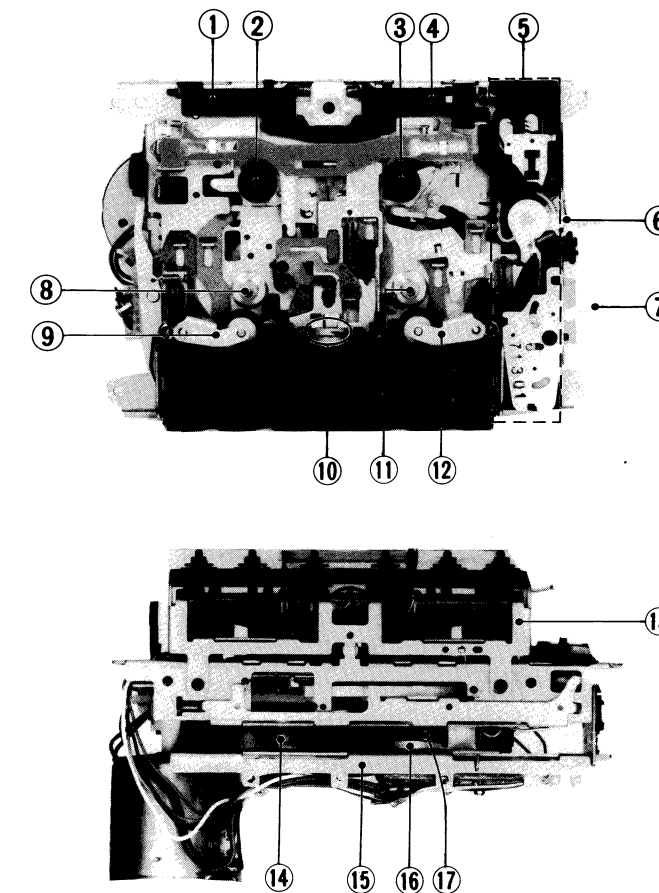
Note: Make sure that the **POWER** switch is set to **OFF** when attaching or detaching the speakers.

Location of Main Parts

Receiver section



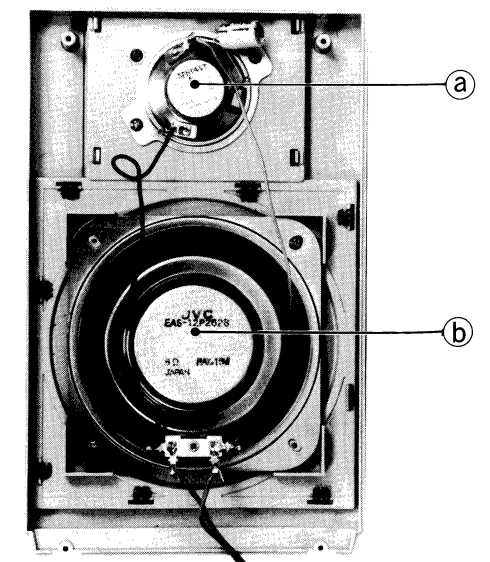
Mechanism section



1. Rec. safety lever (Left)
2. Reel feather (Left)
3. Reel feather (Right)
4. Rec. safety lever (Right)
5. Selector unit assembly
6. Mode select lever
7. Direction lever
8. Capstan shaft (Reverse)
9. Pinch roller arm assembly
10. Head mount base assembly
11. Capstan shaft (Forward)
12. Pinch roller arm assembly
13. Button frame assembly
14. Flywheel (Left)
15. FM bracket
16. Flywheel (Right)
17. Capstan belt
18. Rec. spring
19. Hook-up board
20. DC motor
21. Reel assembly unit

Speaker section

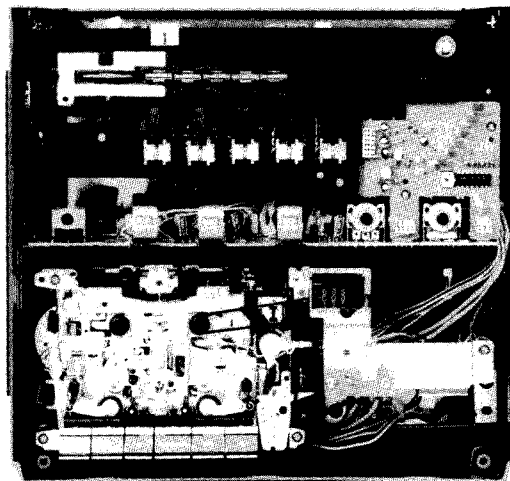
- a Tweeter speaker
b Woofer speaker



Removal of the main parts

Receiver and amplifier section

Front view

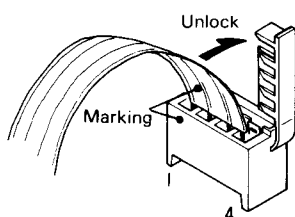


1. Front panel

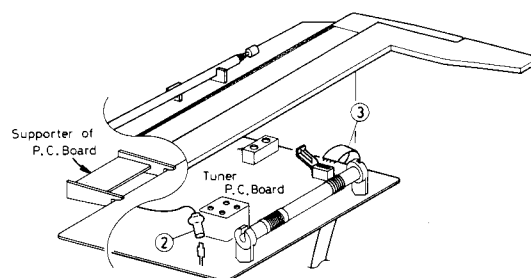
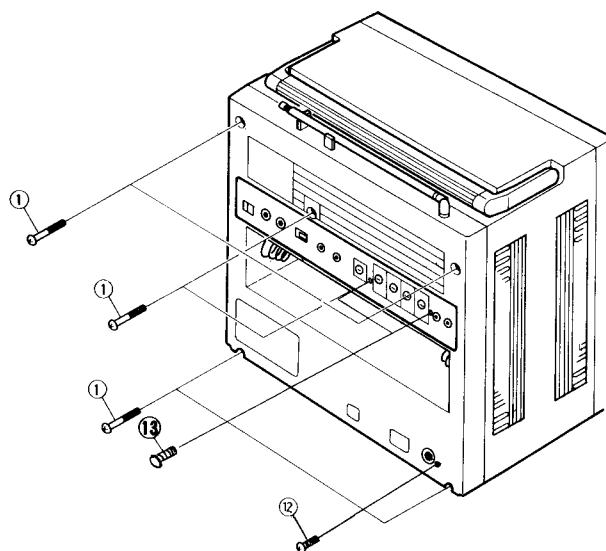
- 1) Remove four knobs (tuning, balance, volume and direction).
- 2) Remove the battery cover at the rear of the cabinet.
- 3) Remove the six screws ① fixing the front panel to the cabinet.
- 4) Open the cassette door, and remove the front panel.

2. Tuner assembly

- 1) Disconnect antenna lead ② from terminal TP-1 on the tuner P.C. board.
- 2) Disconnect parallel wire ③ from connector CN-2.



When removing the parallel wire, it's convenient for connecting then again to do making both on the wire side and socket side.



3) Draw out the tuner ass'y to the front.

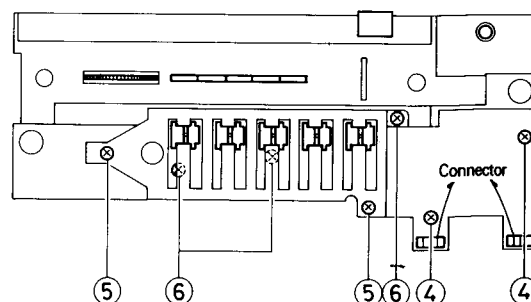
In this case, note that this ass'y is connected with the main P.C. board and the LED indicator P.C. board through two connectors.

3. LED indicator P.C. board

Remove the two screws ④ retaining this board.

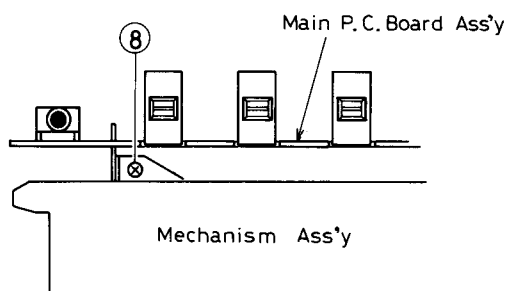
4. SEA P.C. board

- 1) Remove the two screws ⑤ retaining the SEA holder ass'y.
- 2) Remove the two screws ⑥ retaining this board.



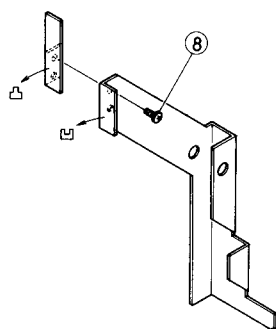
5. Main P.C. board

- 1) Disconnect the four connectors on this board.
- 2) Remove the screw ⑧ fixing the REC lever.



- 3) Remove two screws ⑬ fixing the speaker terminal.
- 4) Draw out this board to the front.

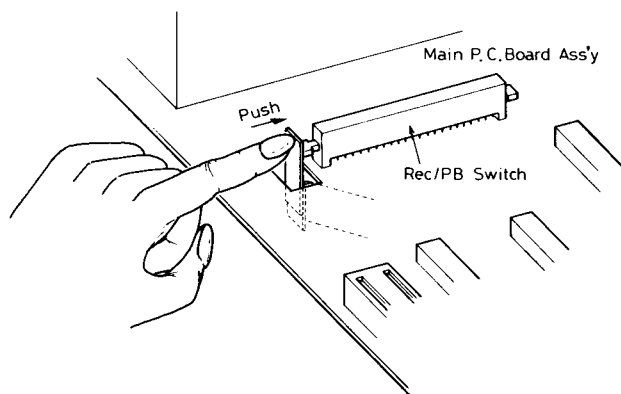
Note: When mounting this lever, arrange the lever guide so that its convex and concave parts are matched.



6. Mechanism assembly

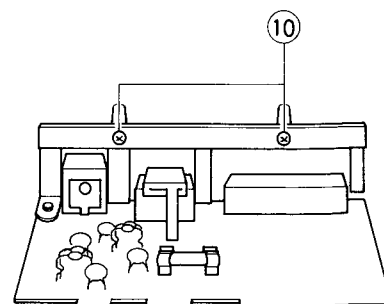
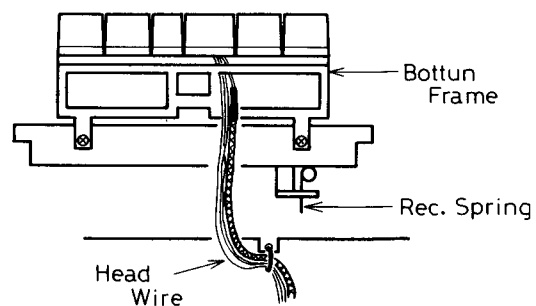
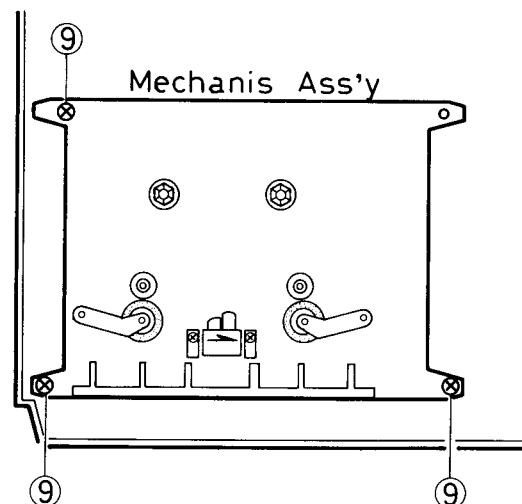
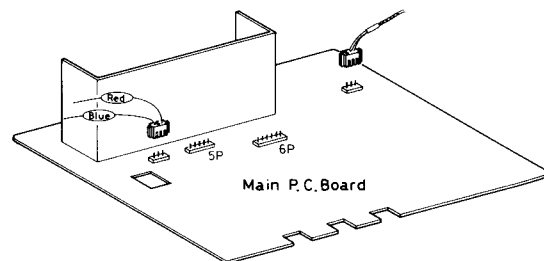
- 1) Remove the counter belt.
- 2) Remove the three screws ⑨ retaining the mechanism ass'y.

Note: When mounting the mechanism, put the REC lever into the state that it presses the REC switch. At this time, take care that the head wire is not caught by the REC lever.



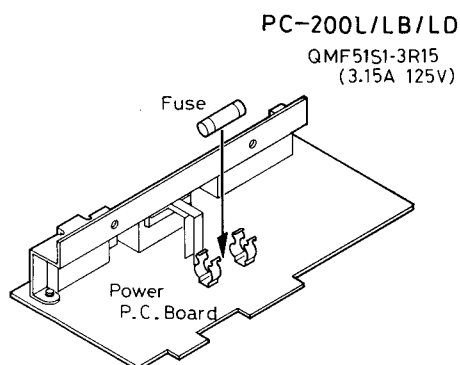
7. Power supply P.C. board

- 1) Remove the mechanism ass'y.
- 2) Remove two screws ⑩.
- 3) Remove a screw ⑫ from rear side.



Replacing the fuse

- 1) Remove the mechanism ass'y to replace the fuse.
- 2) For removing and attaching the mechanism ass'y, see page 8.



Mechanism Parts

1. Flywheel and belt

- 1) Remove two screws (B) fastening the F.R. bracket, and remove the main belt.
- 2) Pull out the flywheel with the reel drive belt.

2. Reel assembly unit

- Remove 4 screws (A) fastening the reel ass'y unit.

3. Motor

- 1) Remove two screws fastening the motor from the F.R. bracket.
- 2) Pull out the motor pulley from the motor shaft.

4. Reel feather

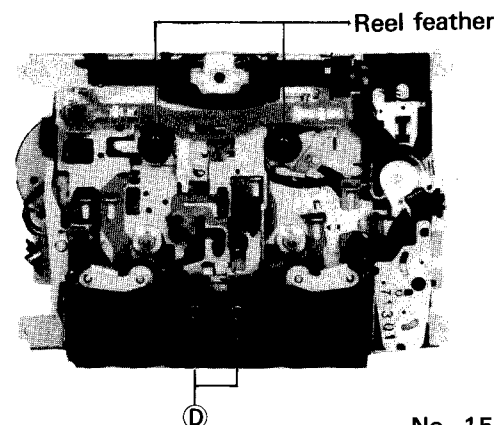
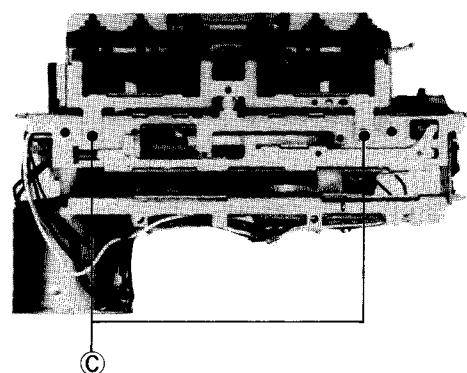
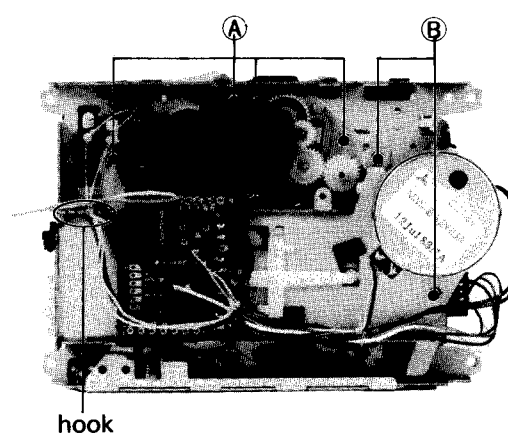
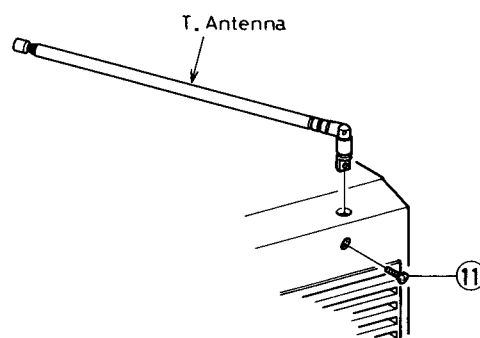
- Pull out the reel feather from the shaft.

5. Rec/PB head and Erase head

- 1) Remove two screws (C) fastening the button frame ass'y.
- 2) Remove two screws (D) fastening the head ass'y with the head block.

Replacing the telescopic antenna

- 1) Remove the screw (11) at the rear of the cabinet to replace the rod antenna.



Main Adjustments

[I] Equipment and Measuring Instruments used for Adjustment

1. Electrical adjustment

- 1) Electronic voltmeter
- 2) Audio frequency oscillator
(range: 50–20 kHz and output 0 dB with impedance 600 Ω)
- 3) Attenuator
- 4) Standard tapes for REC/PB
Maxell UD – Normal tape (TS-5) or equivalent
- 5) Reference tapes for playback (JVC Test Tape)
TMT6402 (for head azimuth adj.)
VTT656A (for motor speed, wow flutter adj.)
VTT664 (for reference level 1 kHz)
TMT6002N (for playback frequency response)
TMT6447 (for music scanning)
TMT6448 (for music scanning)
- 6) Resistors
600 Ω (for attenuator matching)

2. Mechanical adjustment

- 1) Torque testing cassette gauge

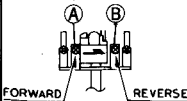
3. Tuner section adjustment

- SSG (sweep signal generator)

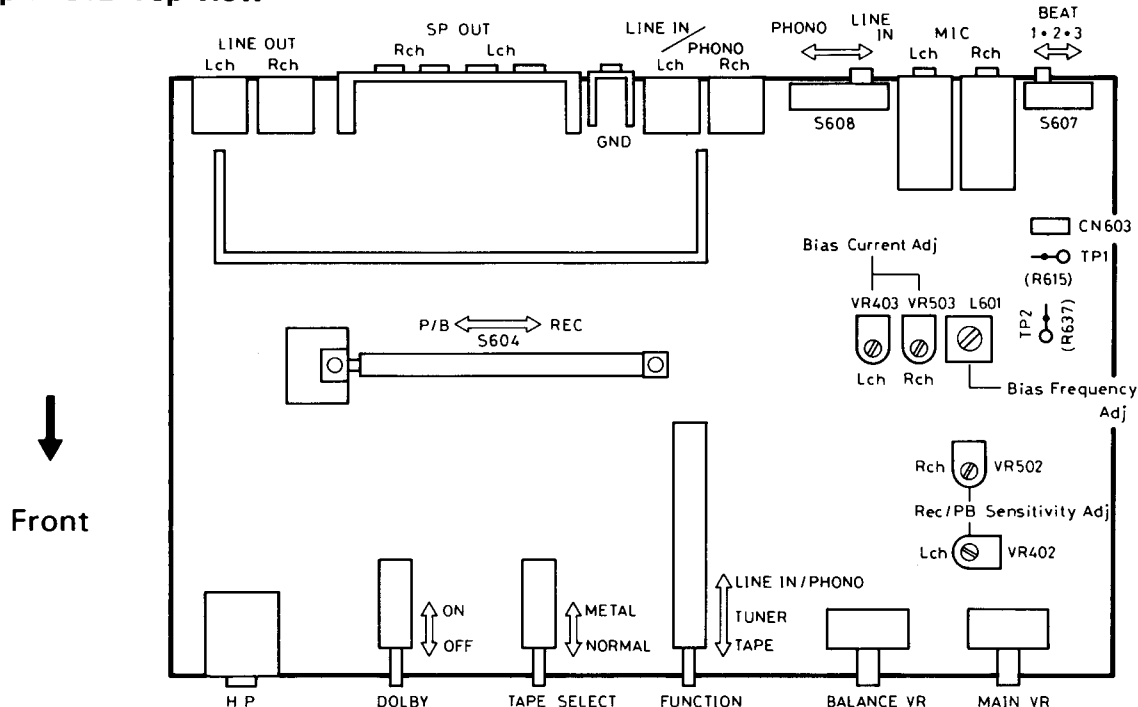
[II] Mechanical Adjustment

1. Adjustment Procedure of Cassette Mechanism

(Adjust the mechanism or confirm that it is in normal operating condition prior to the adjustment of the electrical circuit.)

Item	Adjustment	Adjusting point	Standard value	Remarks
Adjusting motor speed	Connect a speed meter (an electronic counter) to the LINE OUT terminals. Play back the VTT656A test tape. Adjust the semi-fixed resistor in the motor until the reading of the speed meter is 3000 Hz.	Semi-fixed resistor in the DC	3000 Hz	If the speed meter functions as a wow and flutter meter, also, connect the detector to the INPUT terminals of the meter.
Checking wow and flutter	Connect a wow and flutter meter to LINE OUT terminals. Play back the VTT656A test tape. Check to see if the reading of the meter is within 0.08% (WRMS).		0.08% (WRMS)	If the reading becomes moving value even if conforming to the standard, a replacement may be raised. Repairs are necessary.
Checking playback torque	Employ a torque testing cassette tape CTG-N for the checking, or remove the cassette cover and use a torque gauge.		40–70 gr-cm	If the standard torque is not obtained, place the take-up disc assembly.
Checking fast forward torque	Measure the torque in the fast forward mode in the same manner as in the above.		More than 80 gr-cm	If the standard torque is not obtained, perform the following. 1. Clean the capstan belt, the idler pulley circumference, the motor pulley, the take-up reel disc circumference, the flywheel circumference, etc. 2. Replace the belt and idler.
Checking rewind torque	Measure the torque in the rewind mode in the same manner as in the above.		More than 80 gr-cm	If the standard torque is not obtained, clean the capstan belt, idler, motor pulley, flywheel circumference, rewind idler circumference, left reel disc circumference, etc.
Adjusting record/playback head position  Forward Reverse	1. Connect an electronic voltmeter to the LINE OUT terminals. 2. Play back the TMT6402 test tape. 3. Adjust the head angle with the screw (A) and (B) until the reading of the electronic voltmeter becomes maximum for both directions. 4. After adjusting, set the screw with screw bond.	Screw (A) and (B)	Maximum	

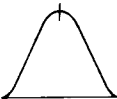
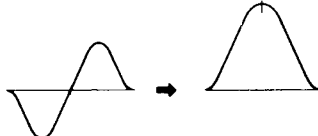
Amp P.C.B Top view



Item	Description
Cassette amp. section	
Power supply	DC 12 V
Output measuring point	Across SPK (6 ohms) and LINE OUT
Positioning	Horizontal
Adjustment	
PB level check Direction: FWD, REV	VTT664 (1 kHz), $-8 \text{ dBs} \pm 2.5 \text{ dB}$ at LINE OUT, L/R diff. within 2.5 dB and within 0 to -2 dB when switched to METAL.
PB freq. response check Direction: FWD, REV	TMT6002N, $0 \pm 3 \text{ dB}$ dev. between 1 kHz and 10 kHz at LINE OUT
Level indicator check	On REC/PB, Level indicator "0" dB should light at LINE OUT monitor level of within $-8 \text{ dBs} \pm 2 \text{ dB}$.
Bias freq. adjustment	Connect counter to TP-1, then adjust L601 so that bias frequency is 68.5 kHz. In this case, set "BEAT" switch (S607) to "1" (NORMAL).
REC/PB freq. response adjustment Direction: FWD Tape: NORMAL, UD	With ref. -20 dB input, adjust VR403 (L-ch) and VR503 (R-ch) so that deviation between 1 kHz and 10 kHz is $0 \pm 0.5 \text{ dB}$. After adjustment, check this level in REV direction. At this time, set "BEAT" switch (S607) to "1" (NORMAL).
REC/PB sensitivity adjustment Direction: FWD Tape: NORMAL, UD	Record ref. -20 dB input signal at LINE IN and play it back. Then, adjust VR402 (L-ch) and VR502 (R-ch) so that PB output at LINE OUT is $-12 \text{ dBs} \pm 1 \text{ dB}$. After adjustment, check this level in REV direction.
REC/PB distortion rate check Direction: FWD, REV	Record specified input signal of 1 kHz and play it back. Then, check that distortion rate is within 6%.
Dolby check 1. NR effect 2. Bias leak 3. REC/PB freq. response at Dolby ON Direction: FWD, REV Tape: NORMAL, UD	Check the difference in noise level between Dolby ON and OFF. Less than -40 dBs , LINE OUT It should meet the following response at LINE OUT.

III. Tuner Alignment

BASIC CONDITIONS

POWER SOURCE OF THE RECEIVER	DC 12 V, AC240/220/120 V, 50/60 Hz
LOAD RESISTANCE OF THE RECEIVER	16mV/47k Ω
MODULATION OF SSG	400 Hz. 30%
Item	Description
1. AM IF ALIGNMENT 1-1 Conditions of the receiver. (1) Power source: (2) Function switch position: (3) Band select switch: (4) Volume control: (5) SEA control: (6) Variable capacitor: 1-2 Connection of Sweeper and the receiver (1) Tuner input: (2) Tuner output: 1-3 Aligning position: 1-4 Alignment (Waveform): 	DC 12 V (When the power is supplied directly to the tuner in the receiver, the voltage should be adjusted to the proper level which shall be required by the tuner.) RADIO MW Minimum gain position Center position Near the minimum capacity position where no signal come in. Positive side to TP3 Positive side to TP5 Negative side to TP6 } CFT Adjust AM I.F.T. (above mentioned aligning position) so that maximum and symmetrical wave form can be obtained. In this case, the wavehead should be appeared at the center marker (455 kHz) on the scope of Sweeper.
2. FM IF ALIGNMENT 2-1 Conditions of the receiver (1) Power source: (2) Function switch position: (3) Band select switch: (4) Volume control: (5) SEA control: (6) Variable capacitor: 2-2 Connection of Sweeper and the receiver (1) Tuner input: (2) Tuner output: NOTE a) Attach a capacitor (30 pF) and a resistor (30 k Ω) to the positive side cable which shall be led from Sweeper input. b) Attach a resistor (100 k Ω) in series to the positive side cable which shall be led from Sweeper output. 2-3 Aligning position: 2-4 Alignment (Waveform):	Same as mentioned in item 1-1 RADIO FM Minimum gain position Center position Near the minimum capacity position where no signal come in. Positive side to TP4 Positive side to TP5 Negative side to TP6 } IF & Discriminate waveform. a) IF Waveform: T1 b) Discriminate Waveform: T2 ("S" curve waveform) Adjust the discriminate coil (T2) so that "S" curve waveform may be changed to IF waveform as shown in following figure.  After above, adjust T1 so that max. sensitivity and symmetrical IF waveform can be obtained on the scope of Sweeper. Adjust the discriminate T2 again so that above symmetrical IF waveform may be changed to balanced "S" curve waveform.
b) Discriminate Waveform:	

Item			Description		
3. AM RF ALIGNMENT					
3-1 Conditions of the receiver.			Same as mentioned in item 1-1. RADIO MAX. Center position Refer the following list shown in item 3-4.		
(1) Power source:					
(2) Function switch position:					
(3) Volume control:					
(4) SEA control:					
(5) Variable capacitor:					
3-2 Conditions of SSG.			Refer the basic condition Refer the following list shown in item 3-4. Approx. 16mV/47k Ω Speaker terminals		
(1) Modulation:					
(2) Frequency:					
(3) Output level of the attenuator in SSG:					
3-3 Power output measuring position:					
3-4 Alignment:					
	Band Select Switch Position	Sort of Antenna to be attached to SSG	Frequency of SSG	Variable Capacitor Position	Aligning Position
1	AM	Loop Antenna	520 kHz	Max. capacity	L4
2			1,650 kHz	Min. capacity	TC-3
3			Ajust the above aligning position (L4 & TC-3) repeatedly so that the tuner can be received above frequency range (band width).		
4			620 kHz	to be received 620 kHz	L3
5			1,400 kHz	to be received 1,400 kHz	TC-6
6			Adjust the above aligning position (L3 & TC-6) repeatedly so that the tuner can be obtained the best sensitivity.		
7	LW	Loop Antenna	145kHz	Max. capacity	L5
8			360kHz	Min. capacity	TC-4
9			Adjust the above aligning position (L5 & TC-4) repeatedly so that the tuner can be received above frequency range (band width)		
10			160kHz	to be received 160kHz	L7
11			350kHz	to be received 350kHz	TC-7
12			Adjust the above aligning position (L7 & TC-7) repeatedly so that the tuner can be obtained the best sensitivity.		
13	SW	Dummy Antenna	5.8 MHz	Max. capacity	L6
14			18.6 MHz	Min. capacity	TC-5
15			Adjust the above aligning position (L6 & TC-5) repeatedly so that the tuner can be received above frequency range (band width).		
16			6 MHz	to be received 6 MHz	L8
17			18 MHz	to be received 18 MHz	TC-8
18			Adjust the above aligning position (L8 & TC-8) repeatedly so that the tuner can be obtained the best sensitivity.		

Item			Description		
4. FM RF ALIGNMENT			Same as mentioned in item 1-1. RADIO FM 16mV/47kΩ Center position Refer the following list shown in item 4-3.		
4-1 Conditions of the receiver.					
(1) Power source:					
(2) Function switch position:					
(3) Band select switch:			Refer the basic condition Refer the following list shown in item 4-3.		
(4) Volume control:					
(5) SEA control:					
(6) Variable capacitor:					
4-2 Condition of FM SSG.			The level shall be decided by the load resistance of the receiver mentioned in the basic conditions.		
(1) Modulation:					
(2) Frequency:					
(3) Output level of the attenuator in FM SSG:					
4-3 Alignment:					
	Band Select Switch Position	Sort of Antenna to be attached to SSG	Frequency of SSG	Variable Capacitor Position	Aligning Position
1	FM	Dummy Antenna	87.5 MHz	Max. capacity	L2
2			109.0 MHz	Min. capacity	TC-2
3			Ajust the above aligning position (L2 & TC-2) repeatedly so that the tuner can be received above frequency range (band width).		
4			90 MHz	to be received 90 MHz	L1
5			106 MHz	to be received 106 MHz	TC-1
6			Adjust the above aligning position (L1 & TC-1) repeatedly so that the tuner can be obtained the best sensitivity.		

FM MPX Alignment

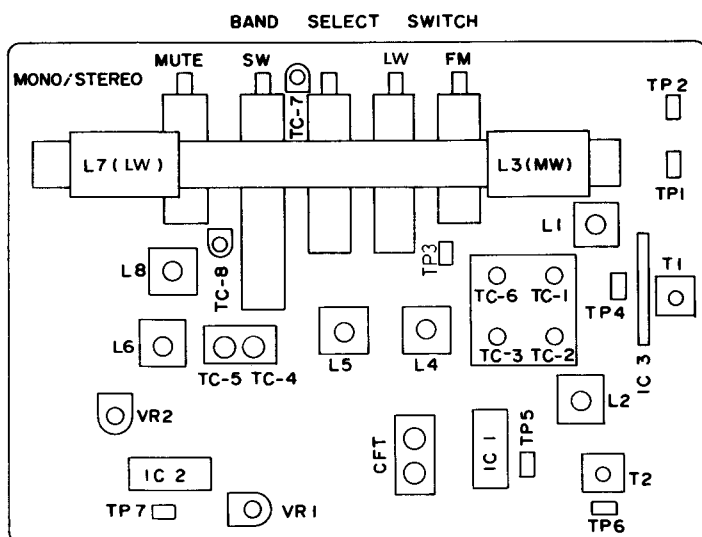
A. 19 kHz Alignment (Regular Method)

1. Connect a frequency counter to the test point TP7 (earth = TP6).
2. Supply the monaural signal (98 MHz, 60 dB) across the test points TP1 and TP2.
3. Adjust the variable resistor VR1 so that the frequency becomes 19 kHz $\pm$ 100 Hz.

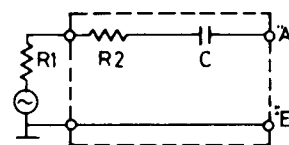
B. 19 kHz Alignment (Simplified Method)

1. Tune to an FM stereo broadcast.
2. Set the variable resistor VR2 to the minimum position of the range in where the Lch and Rch selecting.

Parts Arrangement for Alignment



Dummy Antenna



$$R1 + R2 = 80 \, \Omega$$

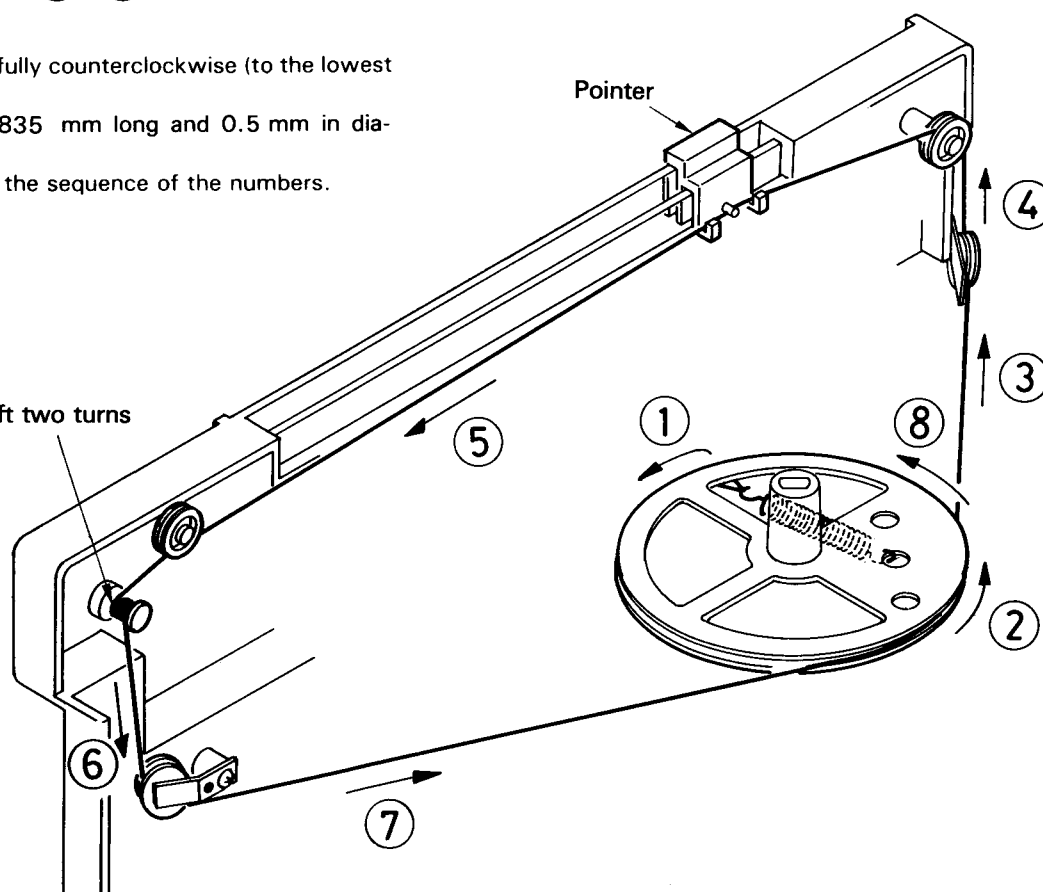
$$C = 10 \, \text{pF}$$

R1: Output impedance of S.S.G.

How to Engage Dial Cord

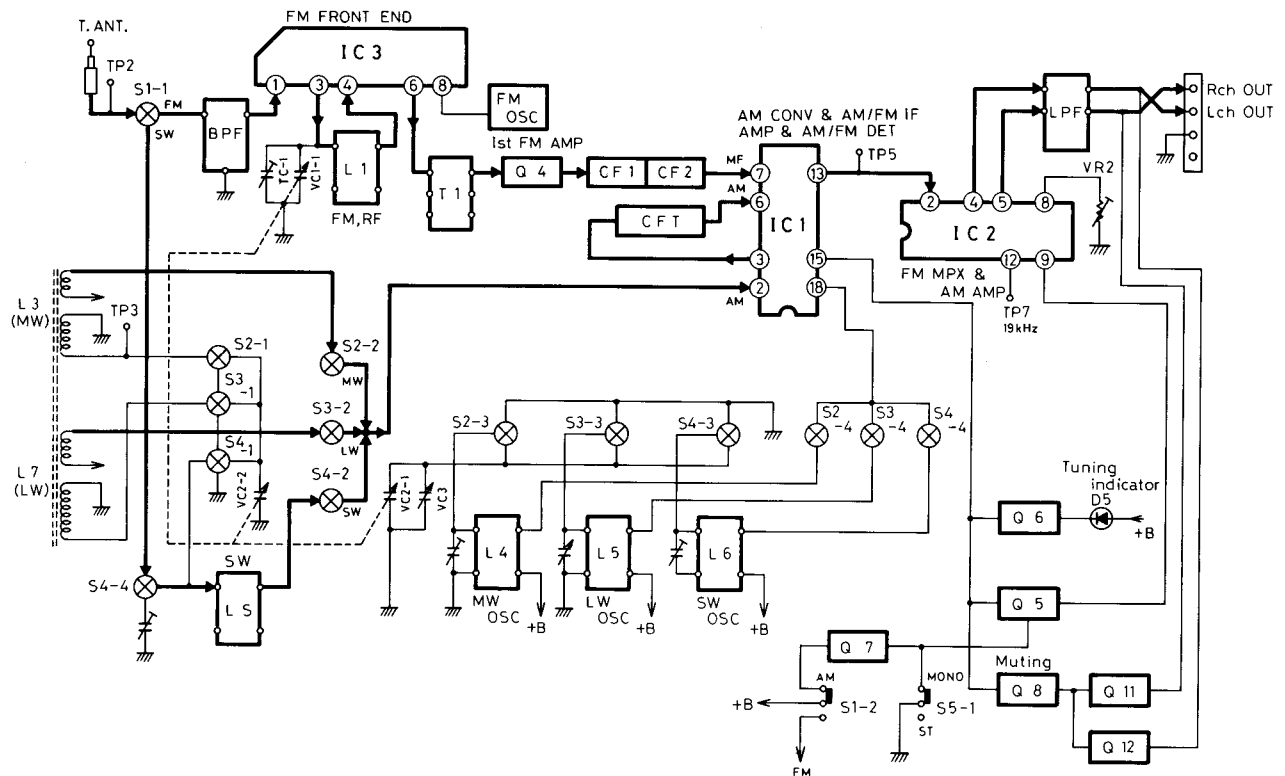
1. Turn the dial drum fully counterclockwise (to the lowest frequency).
2. Use Kevlar cord (835 mm long and 0.5 mm in diameter).
3. Install the string in the sequence of the numbers.

Wind on the shaft two turns

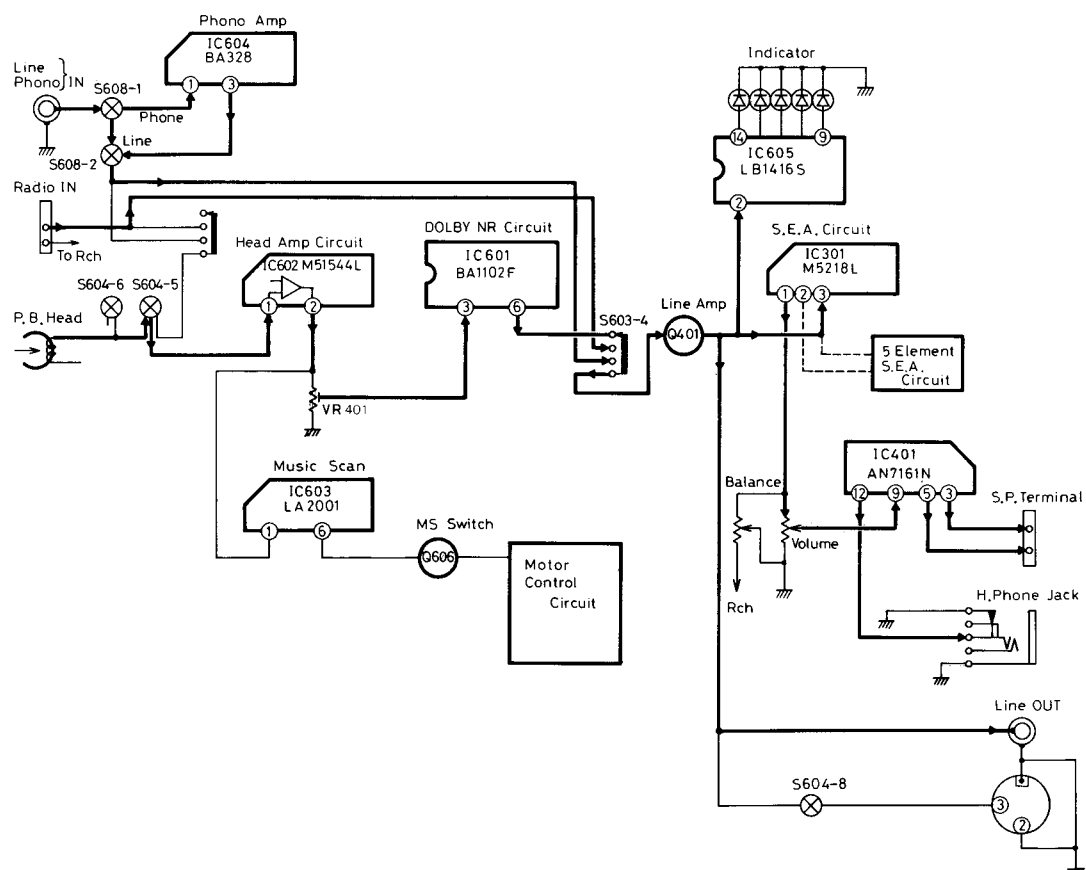


Block Diagrams

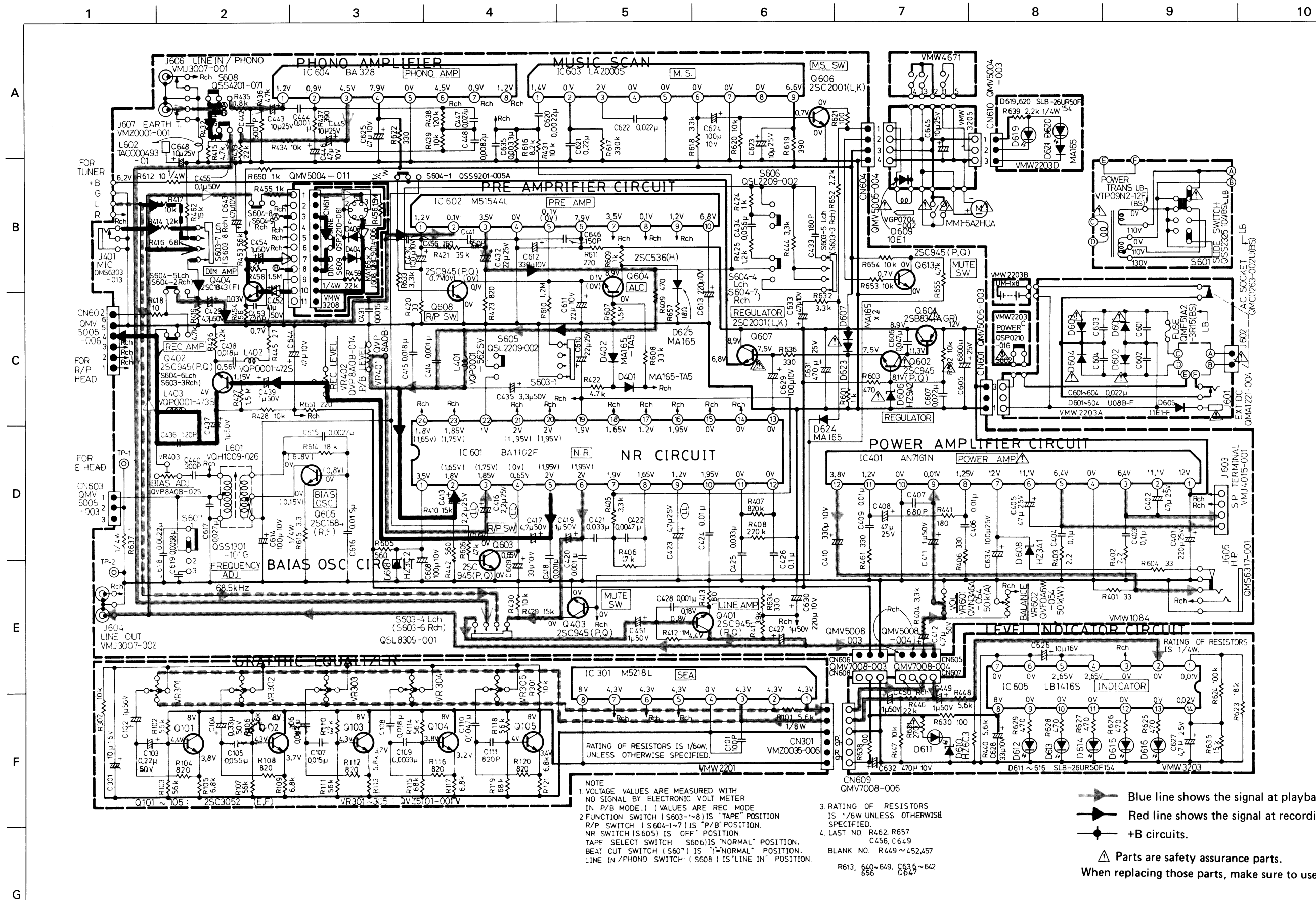
Tuner System



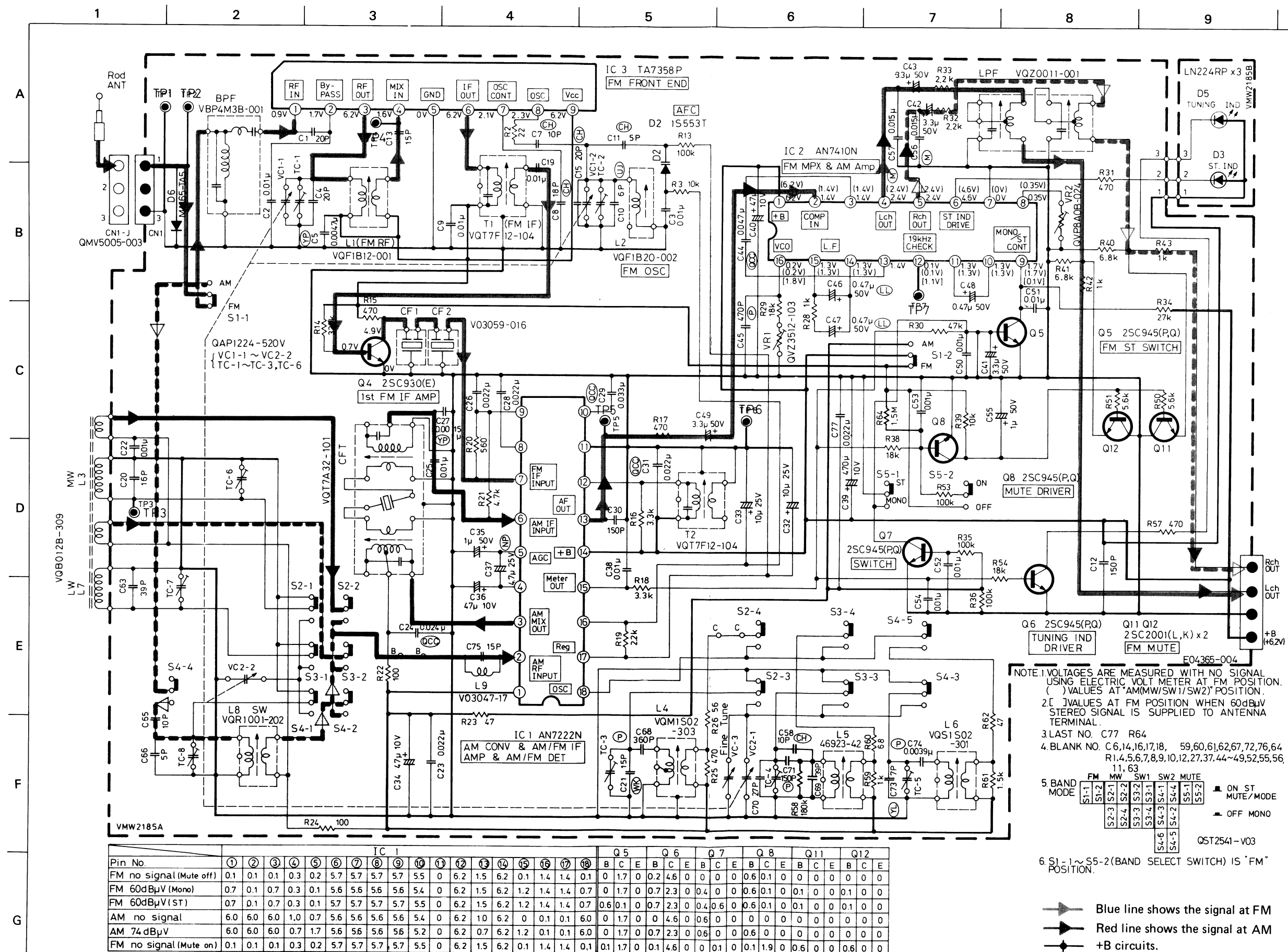
Playback system



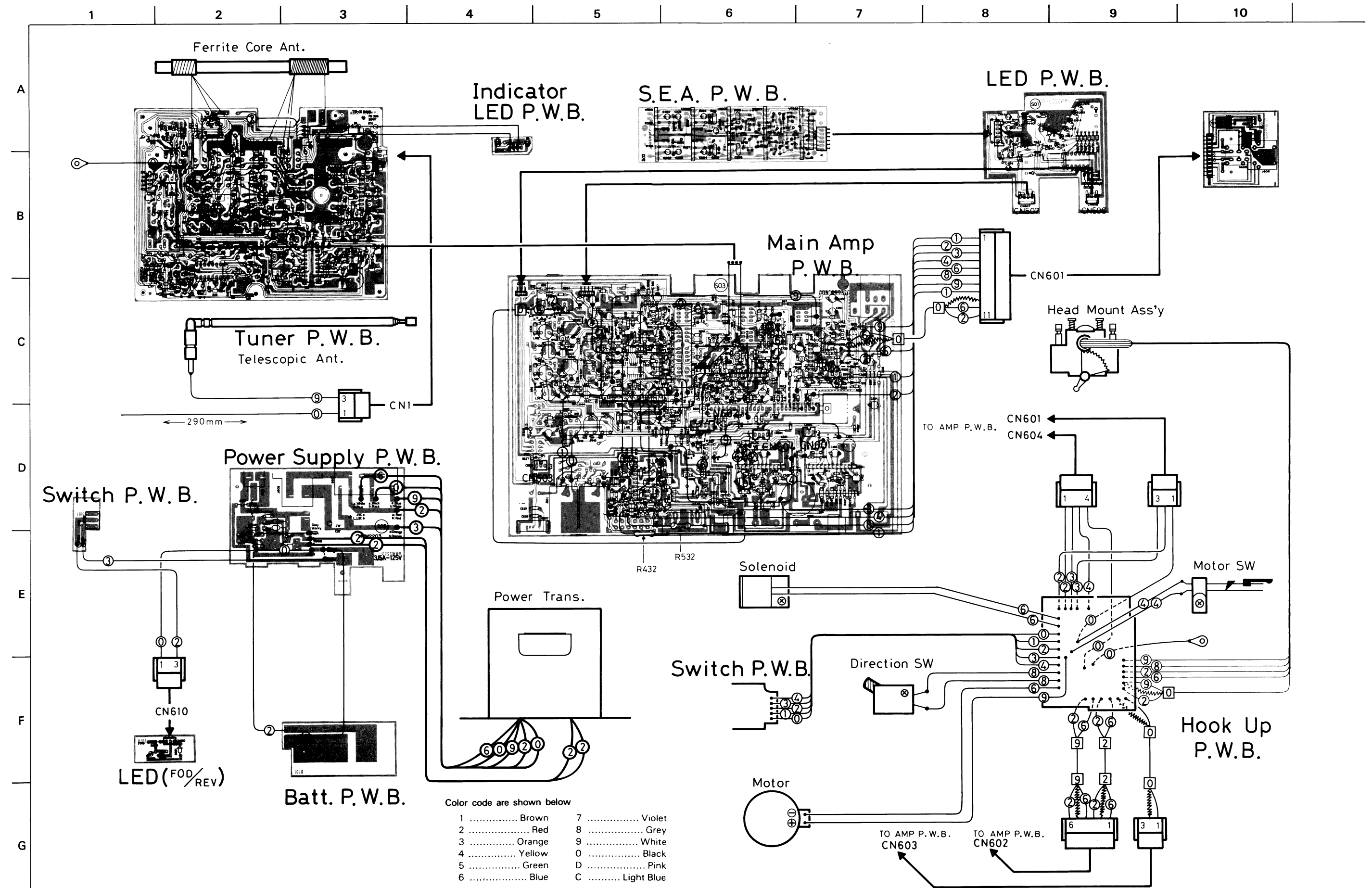
Standard Schematic Diagram of PC-200 (Amplifier circuit)



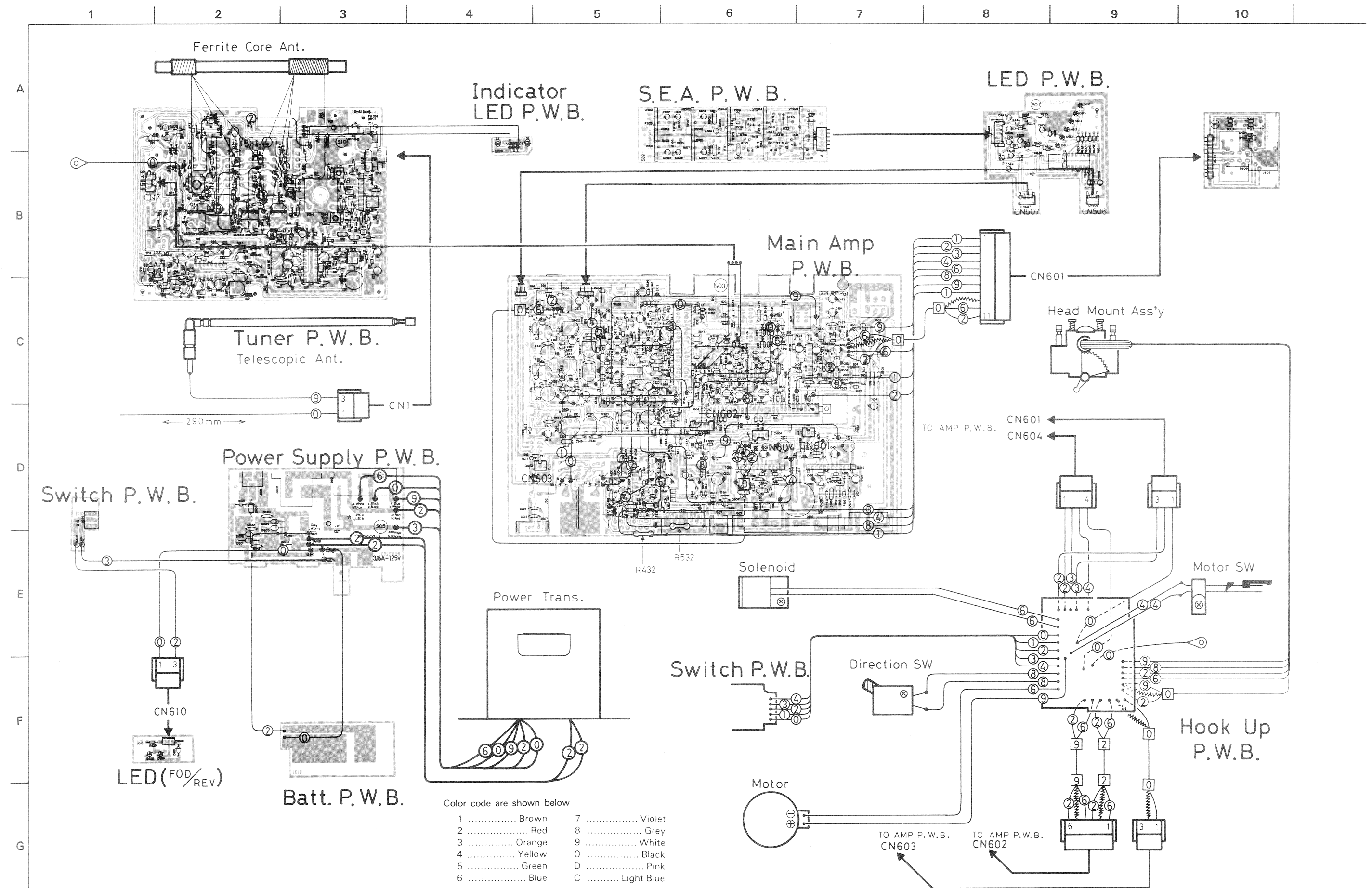
Standard Schematic Diagram of PC-200 (Tuner circuit)



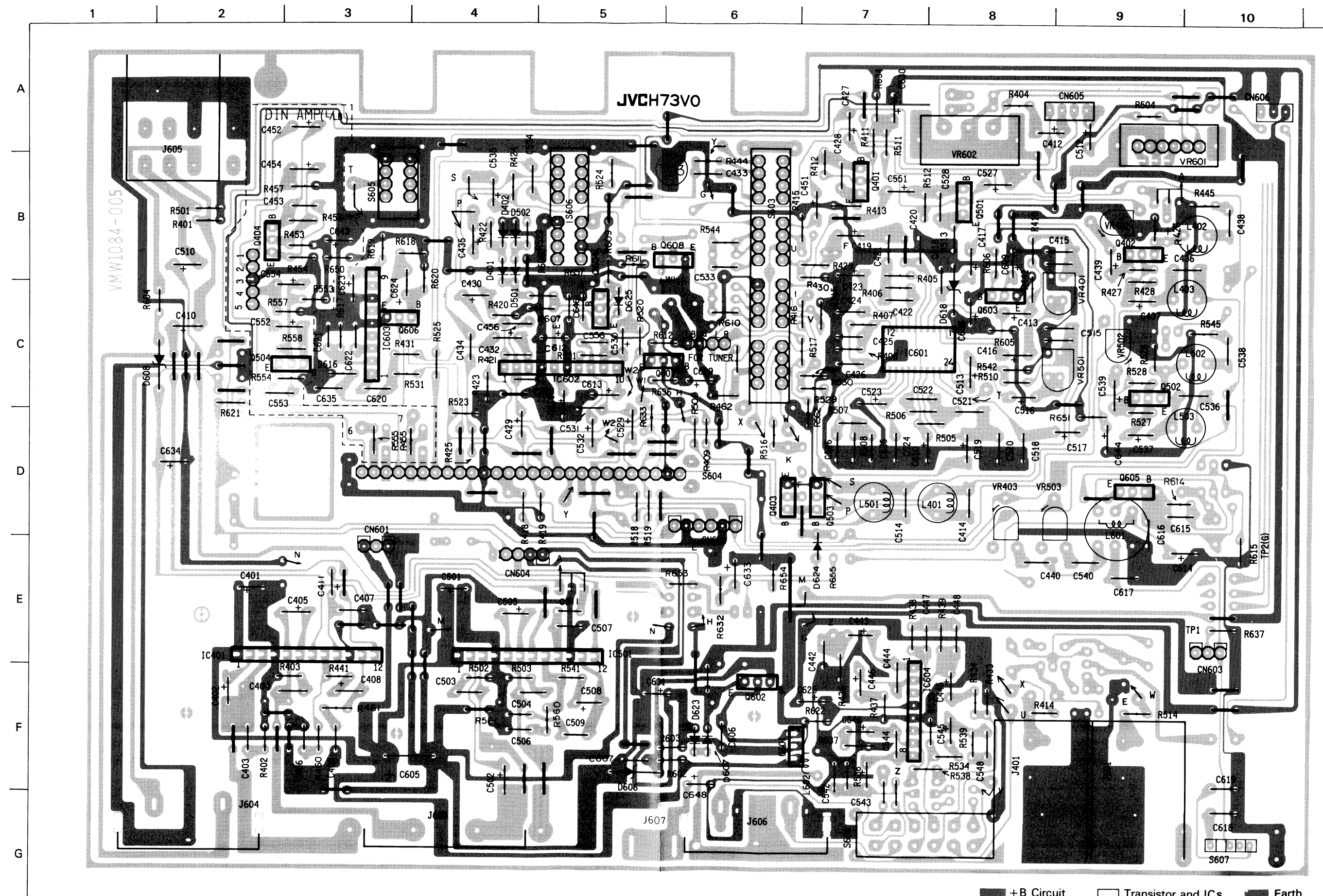
Wiring Connections



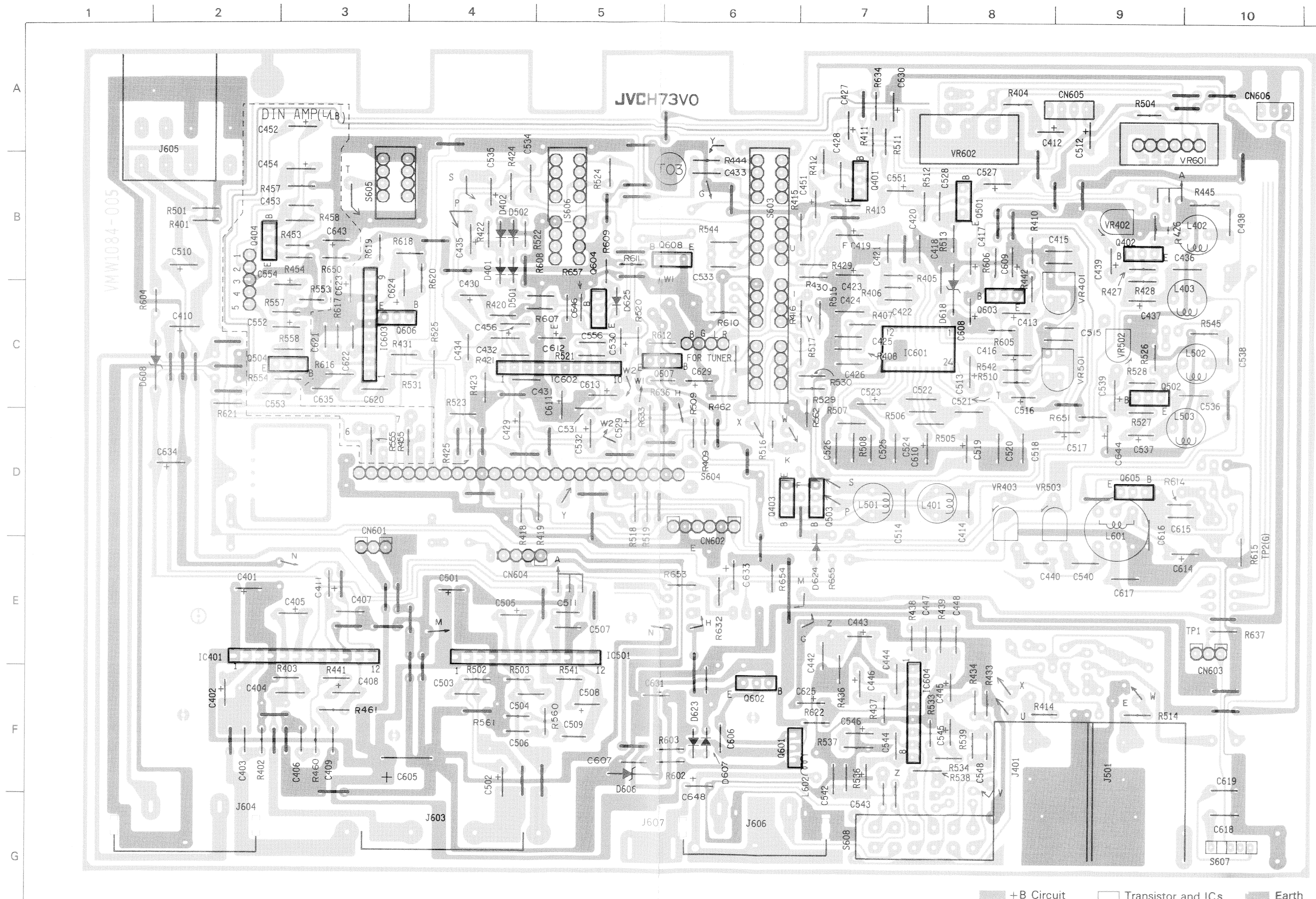
Wiring Connections



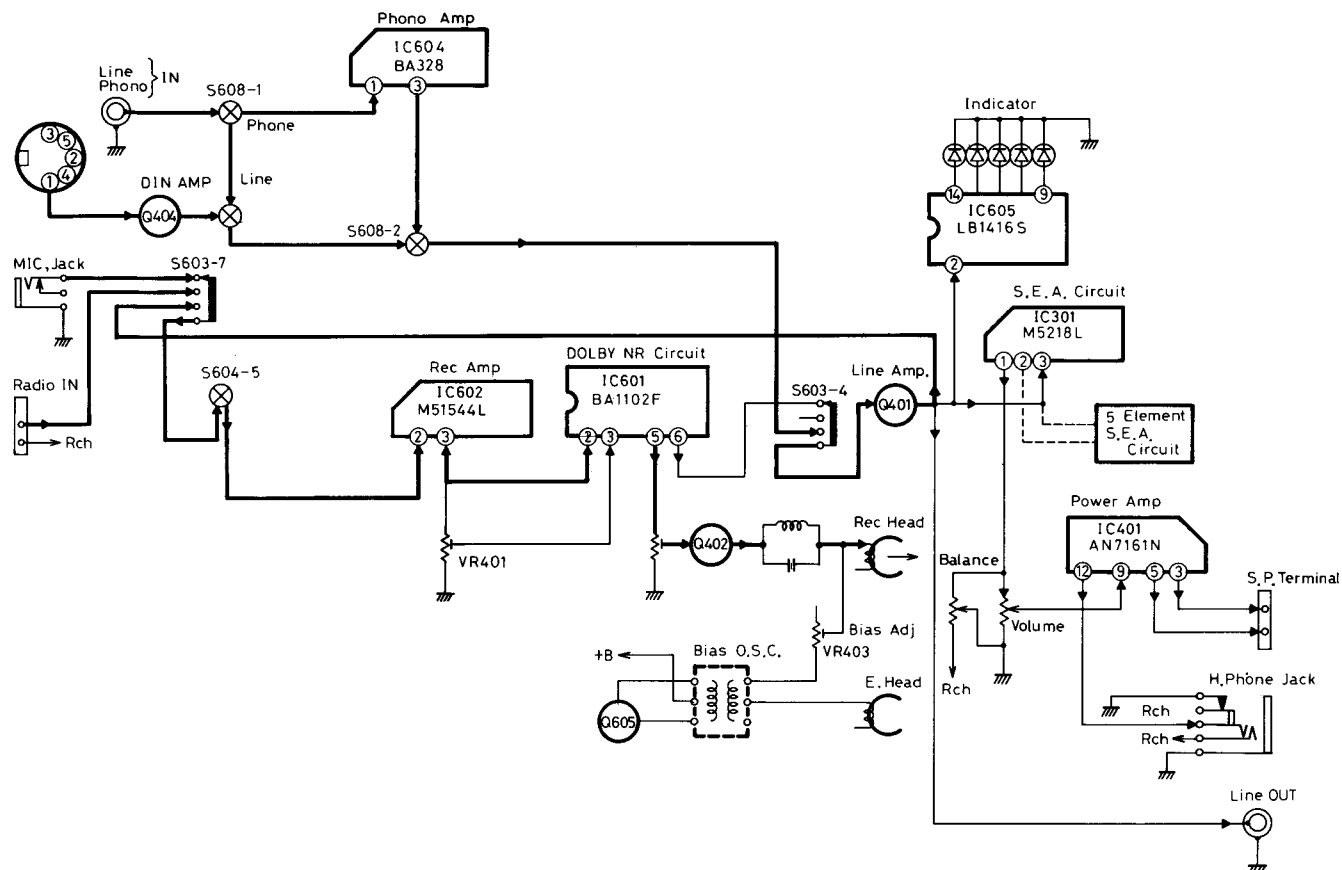
P.C. Board and Parts List (Amplifier P.C. Board)



P.C. Board and Parts List (Amplifier P.C. Board)

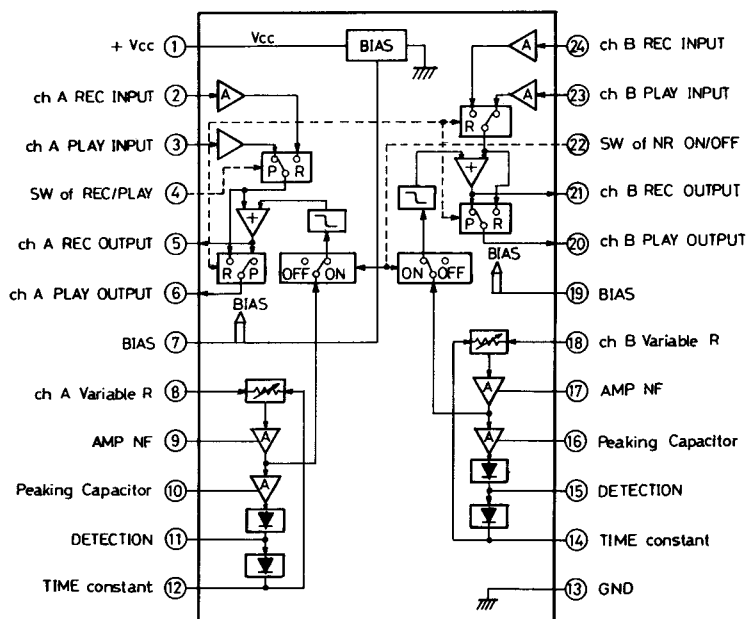
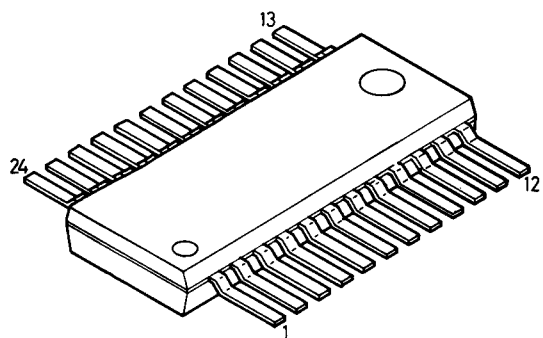


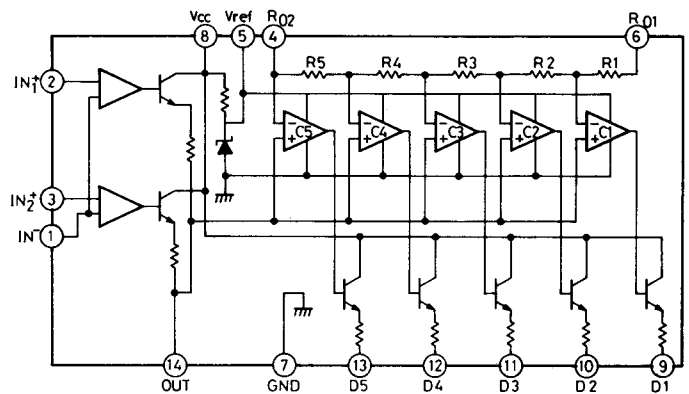
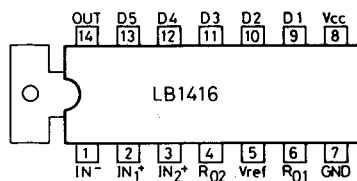
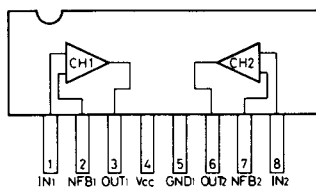
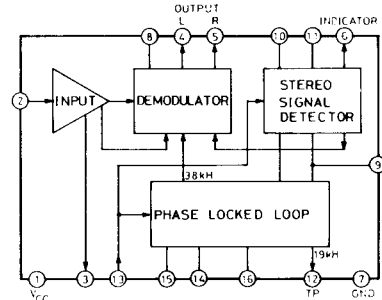
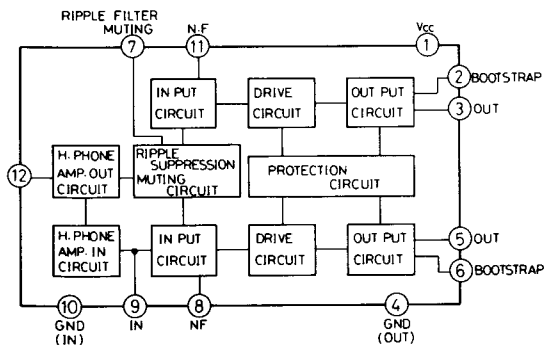
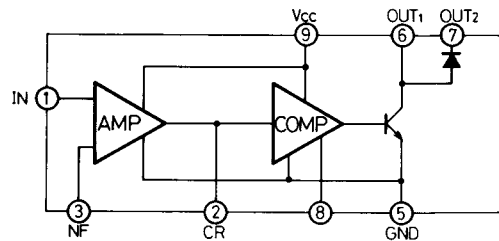
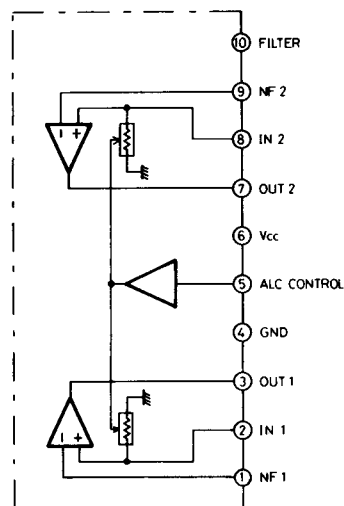
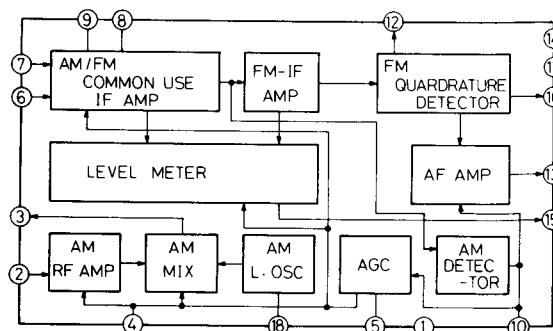
Recording system



Integrated Circuits

BA1102F



LB1416S**BA328****AN7410****AN716W****LA2000****M51544L****AN7222N**

Amp. P.C. Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks
[Regulator]			
Q601	2SB834(Y,GR)	Transistor	
Q602	2SC945(P,Q)	"	
Q607	2SC2001(L,K)	"	
D606	HZ9A2	Zener Diode	
D607, 623	MA165	Diode	
C605	QEL71EM-688M	E. Capacitor	6800 μ F 25 V
C606	QCC11EM-473	C. Capacitor	0.47 μ F "
C629	QET41AR-107	E. Capacitor	100 μ F 10 V
C631	QET41ER-477	"	470 μ F 25 V
C607	QCC11EM-223	C. Capacitor	0.022 μ F "
R601	QRD161J-102	C. Resistor	1 k Ω 1/6 W
R602	" -103	"	10 k Ω "
636	" -331	"	330 Ω "
R603	" -471	"	470 Ω "
[Line Amp.]			
Q401, 501	2SC945(P,Q)	Transistor	
C427, 527, 451, 551	QET41HR-105	E. Capacitor	1 μ F 50 V
C428, 528	QCY41HK-102	C. Capacitor	0.001 μ F "
C630	QET41AR-227	E. Capacitor	220 μ F 10 V
R411, 511	QRD161J-392	C. Resistor	3.9 k Ω 1/6 W
R412, 512	" -105	"	1 M Ω "
R413, 513	" -181	"	180 Ω "
R429, 529	" -153	"	15 k Ω "
R430, 530	" -103	"	10 k Ω "
R634	" -331	"	330 Ω "
[OSC Clock]			
L601	VQH1009-026	Osc. Coil	
Q605	2SC1684(R,S)	Transistor	
S607	QSS1301-101G	Slide Switch	
VR403,503	QVP8A0B-025	V. Resistor	
C440, 540	QCS11HJ-301	C. Capacitor	300 pF 50 V
C614	QET41AR-107	E. Capacitor	100 μ F 10 V
C615	QCY41HK-272	C. Capacitor	0.0027 μ F 50 V
C616	QCC11EM-153	"	0.015 μ F 25 V
C617	QFV41HJ-273	T.F. Capacitor	0.027 μ F 50 V
C618	QCY41HK-222	C. Capacitor	0.0022 μ F "
C619	" -682	"	0.0068 μ F "
R614	QRD161J-183	C. Resistor	18 k Ω 1/6 W
R615	QRD141J-3R3S	"	3.3 Ω "
R637	" -1R0S	"	1 Ω "
[Rec. Amp.]			
Q402, 502	2SC945(P,Q)	Transistor	
L402, 502	VQP0001-472S	Inductor	
L403, 503	" -473S	"	
VR402,502	QVP8A0B-014	V. Resistor	
	VYH5536-001	Shield plate	
C436, 536	QCS11HJ-121	C. Capacitor	120 pF 50 V
C437, 537, 439, 539	QET41HR-105	E. Capacitor	1 μ F "
C438, 538	QFV41HJ-183	T.F. Capacitor	0.018 μ F "
C644	QET41AR-476	E. Capacitor	47 μ F 10V

⚠ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

Ref. No.	Parts No.	Parts Name	Remarks
R426, 526	QRD161J-122	C. Resistor	1.2 k Ω 1/6 W
R427, 527	" -155	"	1.5 M Ω "
R428, 528	" -103	"	10 k Ω "
R445, 545	" -270	"	27 Ω "
R651	" -221	"	220 Ω "
[Power Amp.]			
IC401,501	AN7161N	I.C.	
	VYH3217-002	Heat Sink	
D608	HZ3A1	Zener Diode	
C401, 501	QET41ER-227	E. Capacitor	220 μ F 25 V
C402, 502	" -476	"	47 μ F "
C403, 503, 404, 504	QCC11EM-104	C. Capacitor	0.1 μ F 25 V
C405, 505	QET41ER-476	E. Capacitor	47 μ F 25 V
C406, 506	QCF11HP-103	C. Capacitor	0.01 μ F 50 V
C407, 507	QCY41HK-681	C. Capacitor	680 pF "
C408, 508	QET41ER-476	E. Capacitor	47 μ F 25 V
C409, 509	QFV41HJ-103	T.F. Capacitor	0.01 μ F 50 V
C410, 510	QET41ER-337	E. Capacitor	330 μ F 25 V
C411, 511	QET41HR-105	"	1 μ F 50 V
C412, 512	QET41HR-475	"	4.7 μ F "
C634	QET41ER-107	"	100 μ F 25 V
C457, 557, 458, 558	QCF11HP-221	C. Capacitor	220pF 50V
R401, 501	QRD161J-330	C. Resistor	33 Ω 1/6 W
R402, 502, 403, 503	" -2R2	"	2.2 Ω "
R404, 504	" -332	"	3.3 k Ω "
R441, 541	" -181	"	180 Ω "
R604	" -330	"	33 Ω "
R460, 560, 461, 561	" -331	"	330 Ω "
[EQ & Pri. Amp.]			
IC602	M51544L	I.C.	
S606	QSL2209-002	Lever Switch	
Q604	2SC536(H)	Transistor	
Q608	2SC945(P,Q)	Transistor	
D401, 501, 402, 502	MA165	Diode	
VR401,501	QVP8A0B-053	V. Resistor	
C429, 529	QET41HR-475	E. Capacitor	4.7 μ F 50 V
C430, 530	QET41AR-107	"	100 μ F 10 V
C431, 531	QCY41HK-152	C. Capacitor	0.0015 μ F 50 V
C432, 532	QET41ER-226	E. Capacitor	22 μ F 25 V
C434, 534	QFV41HJ-563	T.F. Capacitor	0.056 μ F 50 V
C435, 535	QET41HR-335	E. Capacitor	3.3 μ F "
C611	QET41ER-226	"	22 μ F 10 V
C612	" -337	"	330 μ F "
C613	QET41ER-227	"	220 μ F 25 V
C646	QCS11HJ-151	"	150PF 50 V
C433, 533	QCS11HJ-181	C. Capacitor	180pF "
C649	QCC11EM-103	C. Capacitor	0.01 μ F 25 V
C456, 556	QCS11HJ-151	"	150 pF 50 V
R414, 514, 425, 525	QRD161J-122	C. Resistor	1.2 k Ω 1/6 W
R415, 515	" -472	"	4.7 k Ω "
R416, 516,	" -683	"	68 k Ω "
R417, 517,	" -103	"	10k Ω "
R418, 518	" -100	"	10 Ω "
R419, 519	" -472	"	4.7 k Ω "
R420, 520	" -330	"	33 Ω "
R421, 521	" -393	"	39 k Ω "
R422, 522,	" -472	"	4.7 k Ω "
424, 524	" -102	"	1 k Ω "
R423, 523	" -821	"	820 Ω "
R432, 532	" -473	"	47k Ω "

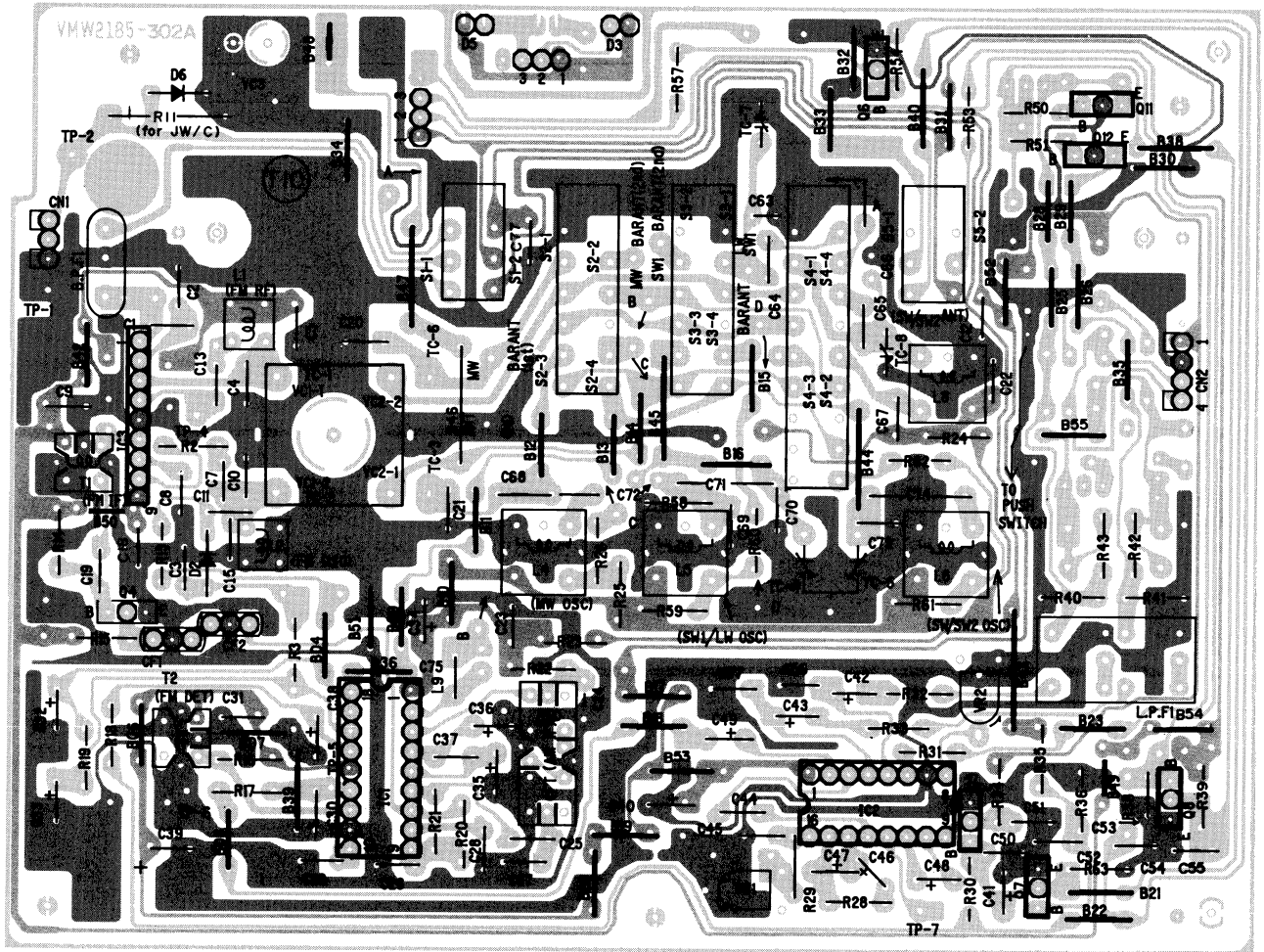
Ref. No.	Parts No.	Parts Name	Remarks
R444, 544, 633	QRD161J-332	C. Resistor	3.3 k Ω 1/6 W
R607	" -155	"	1.5 M Ω "
R608	" -333	"	33 k Ω "
R609	QRD144J-102	"	1 k Ω 1/4W
R610	QRD144J-125S	"	1.2M Ω 1/4W
R611	QRD161J-221	"	220 Ω 1/6W
R612	QRH143J-100	"	10 Ω 1/4 W
R462, 562	QRD161J-153	"	15 k Ω 1/6 W
R657	" -180Y	"	18 Ω "
[Dolby NR]			
S605	QSL2209-002	Lever Switch	
IC601	BA1102F	I.C.	
Q603	VYH5404-001	IC Clamp	
	2SC945(P,Q)	Transistor	
D618	HZ3C2	Zener Diode	
L401, 501	VQP0001-562SV	Inductor	
C413, 513	QEB41EM-225	E. Capacitor	2.2 μ F 25 V
C414, 514,	QCY41HK-102	C. Capacitor	0.01 μ F 50 V
418, 518,			
420, 520			
C415, 515	QFV41HJ-183	"	0.018 μ F 25 V
C416, 516	QEB41EM-225	E. Capacitor	2.2 μ F "
C417, 517,	QET41HR-475	"	4.7 μ F 50 V
C419, 519	" 105	"	1 μ F "
C421, 521,	QFV41HJ-333	T.F. Capacitor	0.033 μ F "
425, 525			
C422	QCY41HK-472	C. Capacitor	0.047 μ F "
C423, 523	QEB41EM-475	E. Capacitor	4.7 μ F 25 V
C424, 524	QFV41HJ-103	T.F. Capacitor	0.01 μ F 50 V
C426, 526	" -104	"	0.1 μ F "
C608	QET41AR-107	E. Capacitor	100 μ F 10 V
C609	QET41ER-336	"	33 μ F 10 V
C610	QET41AR-226	"	22 μ F 25 V
R405, 505,	QRD161J-332	C. Resistor	3.3 k Ω 1/6 W
R406, 506	" -473	"	47 k Ω "
R407, 507	" -824	"	820 k Ω "
R408, 508	" -224	"	220 k Ω "
R409, 509	" -471	"	470 Ω "
R410, 510	" -153	"	15 k Ω "
R442, 542	" -561	"	560 Ω "
R605	" -561	"	560 Ω "
R606	" -473	"	47k Ω "
[MS Block]			
IC603	LA2000S	I.C.	
Q606	2SC2001(L,K)	Transistor	
Q403, 503,	2SC945(P,Q)	"	
613			
D624	MA165	Si diode	
C620	QCY41HK-222	C. Capacitor	0.0022 μ F 50 V
C621	QFV41HJ-224	F. Capacitor	0.22 μ F "
C622	QCC11EM-223	C. Capacitor	0.022 μ F 25 V
C623	QET41ER-106	E. Capacitor	10 μ F "
C624	QET41AR-107	"	100 μ F 10 V
C633	" -476	"	47 μ F "
C635	QCY41HK-332	C. Capacitor	0.0033 μ F 50 V
R431, 531,	QRD161J-103	C. Resistor	10 k Ω 1/6 W
620			
R616	" -822	"	8.2 k Ω "
R617	" -334	"	330k Ω "

Ref. No.	Parts No.	Parts Name	Remarks
R618, 632	QRD161J-332	C. Resistor	3.3 k Ω 1/6 W
R619	" -391	"	390 Ω "
R621	" -101	"	100 Ω "
R652	" -222	"	2.2 k Ω 1/6 W
R653, 654	" -103	"	10k Ω "
R655	" -472	"	4.7k Ω "
[Phone Amp.]			
IC604	BA328	I.C.	
J403	VMC0002-002	Jack Ass'y	For Phone & Line
J503	" -001	"	In (L) For Phone & Line
J606	VMJ3007-001	"	In (R)
J607	VMZ0001-001	"	
S608	QSS4201-071	Earth Terminal	
L602	VQC1304-001	Slide Switch Coil	
C442, 542	QCS11HJ-501	C. Capacitor	500 pF 50 V
C443, 543,	QET41ER-106	E. Capacitor	10 μ F 25 V
445, 545			
C444, 544	QCY41HK-102	C. Capacitor	0.001 μ F 50 V
C446, 546,	QET41AR-476	E. Capacitor	47 μ F 10 V
625			
C447, 547	QFV41HJ-273	T.F. Capacitor	0.027 μ F 50 V
C448, 548	QCY41HK-822	C. Capacitor	0.0082 μ F "
C648	QET41ER-106	"	10 μ F 25 V
C455, 555	QET41HR-104	E. Capacitor	0.1 μ F 50 V
R433, 533	QRD161J-223	C. Resistor	22 k Ω 1/6 W
R434, 534,	" -103	"	10 k Ω "
439, 539			
R435, 535	" -182	"	1.8 k Ω "
R436, 536	" -473	"	47 k Ω "
R437, 537	" -391	"	390 Ω "
R438, 538	" -124	"	120 k Ω "
R622	" -331	"	330 Ω "
[Others]			
J603	VMJ4015-001	S.P. Terminal	
J403	VMC0002-002	Jack Ass'y	For Line Out (L)
J604	VMJ3007-002	"	For Line Out
J502	VMC0002-001	"	For Line Out (R)
J401, 501	QMS6303-013	"	For Mic.
J605	QMS6317-001	Jack	For H.P.
S603	QSL8309-001	Lever Switch	For Function
S604	QSS9201-005A	Slide Switch	For R/P
VR601	QVN3A6A-054	V. Resistor	For Main
VR602	QVF0A6W-054	"	For Balance
CN601	QMV5005-003	Connector	
CN602	" -006	Plug Ass'y	For R/P Head
CN603	" -003	Connector	For E. Head
CN604	" -005	Plug Ass'y	For Mecha.
CN605	QMV5008-004	Connector	For LED P.C.B.
CN606	" -003	"	For LED P.C.B.
[DIN AMP.]			
Q404, 504	2SC1843(F)	Transistor	
C452, 552	QET41HR-105	E. Capacitor	1 μ F 50V
C453, 553	QCS11HJ-471	C. Capacitor	470pF "
C454, 554	QET41HR-105	E. Capacitor	1 μ F "
C643	QET41AR-476	"	47 μ F 10V
R458, 558	QRD161J-155	C. Resistor	1.5M Ω 1/6W
R453, 553	" -562	"	5.6k Ω "
R454, 554	" -560	"	56 Ω "
R455, 555,	" -102	"	1k Ω "
650			

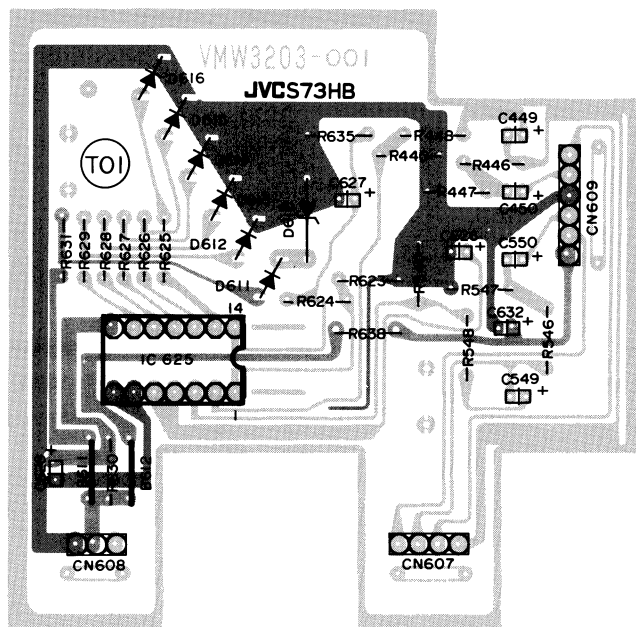
Tuner P.C. Board

LED P.C.B.

Front



LED P.C. Board



- +B Circuit
- Transistor and ICs
- Earth

Tuner, LED P.C. Boards Parts List

Ref. No.	Parts No.	Parts Name	Remarks
[Tuner]			
VR01	VMW2185-302A	P.C. Board	
VR02	QVZ3512-103	V. Resistor	
VC01	QVP8A0B-024	"	
VC03	QAP1224-520V	V. Capacitor	
TC04, 05	QAT2002-001	T. Capacitor	
TC07, 08	QAT2001-006	"	
—	QST2541-V03	Push Switch	
L01	VQF1B12-001	RF Coil	FM
L02	V03105-029	Osc. Coil	FM
L04	VQM1S02-303	"	MW
L05	46923-42	"	SW1
L06	VQS1S02-301	"	SW2
L08	VQR1001-202	RF Coil	SW2
L09	V03047-17	Inductor	
T01, 02	VQT7F12-104	I.F.T.	
CT01	VQT7A32-101	"	
LF01	VQZ0011-001	Low Pass Filter	
BF01	VBP4M3B-001	Band Pass Filter	
CF01, 02	VCF2L3B-301	C. Filter	
IC01	AN7222N	I.C.	
IC02	AN7410N	"	
IC03	TA7358P	"	
Q04	2SC930(E)	Transistor	
Q05—08	2SC945(P,Q)	"	
Q11, 12	2SC2001(L,K)	"	
D02	1S553T	Vari. Cap	
D06	MA165	Diode	
C01	QCS11HJ-200	C. Capacitor	20pF 50V
C04	QCS11HJ-220	"	20 pF "
C02, 03, 09, 19, 22, 25, 38, 50—54	QCF11HP-103	"	0.01 μ F "
C05	QCY41HK-472	"	0.0047 μ F "
C07, 72	QCT05CH-100	"	10 pF "
C08	" -180	"	18 pF "
C10	QCT05UJ-6R0	"	6 pF "
C11	QCT05CH-5R0	"	5 pF "
C12, 30	QCS11HJ-151	"	150 pF 50 V
C13, 75	" -150	"	15 pF "
C15	QCT05CH-200	"	20pF
C20	QCS11HJ-160	"	16 pF 50 V
C21	QCT05WK-150	"	15 pF
C23, 26, 28, 77	QCF11HP-223	"	0.022 μ F 50 V
C24, 31	QCC11EM-223	"	0.022 μ F 25 V
C27	QCY41HK-152	"	0.0015 μ F 50 V
C29	QCC11EM-333	"	0.033 μ F 25 V
C32, 33	QET41ER-106	E. Capacitor	10 μ F "
C34, 36, 40	QET41AR-476	"	47 μ F 10 V
C35, 55	QET41HR-105	"	1 μ F 50 V
C37	QEN41EM-475	"	4.7 μ F 25 V
C39	QET41AR-477	"	470 μ F 10 V
C41, 42, 43, 49	QET41HR-335	"	3.3 μ F 50 V
C44	QCC11EM-473	C. Capacitor	0.047 μ F 25 V
C45	QFS11HJ-471	P. Capacitor	470 pF 50 V
C46, 47	QEB41HM-474	E. Capacitor	0.47 μ F "
C48	QEB41HR-474	"	0.47 μ F "
C56, 57	QCC11EM-153	C. Capacitor	0.015 μ F 25V
C63, 69	QCS11HJ-390	C. Capacitor	39 pF 50 V
C64	" -100	"	10 pF "
C65	" -100	"	10 pF "
C66	" -5R0	"	5 pF "
C67	" -120	"	12 pF "
C68	QFS11HJ-361	P. Capacitor	360 pF "
C70	QCS11HJ-270	C. Capacitor	27 pF

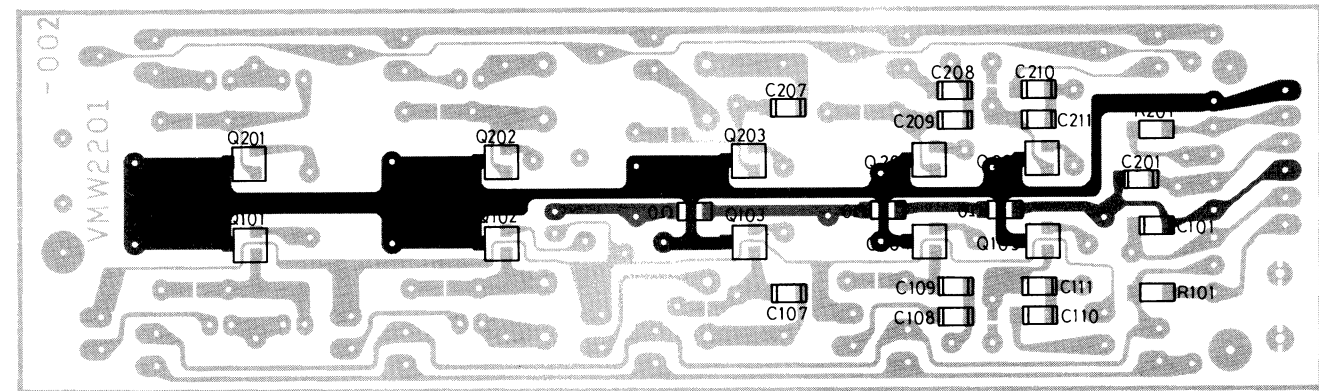
△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

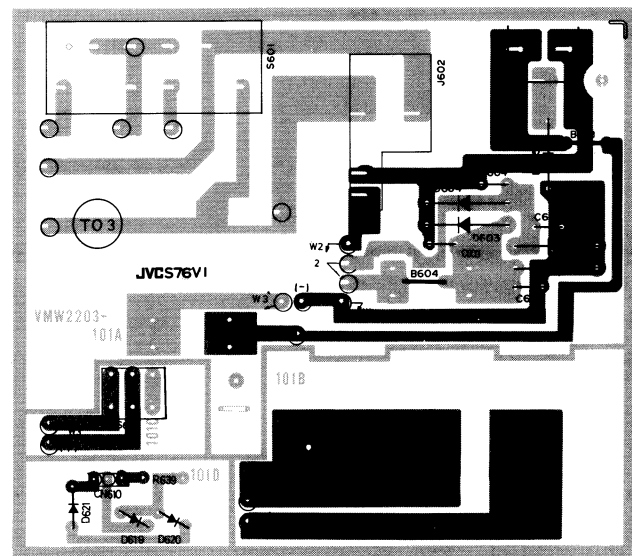
Ref. No.	Parts No.	Parts Name	Remarks
C71	QFS21HJ-151	P. Capacitor	150 pF 50 V
C73	QCT26YL-7R0	C. Capacitor	7 pF
C74	QFS21HJ-392	P. Capacitor	0.0039 pF 50 V
C75	QCS11HJ-150	C. Capacitor	15PF 50V
C77	QCF11HP-223	"	0.022 μ F 50V
R02	QRD161J-220	C. Resistor	22 Ω 1/6 W
R03, 39	" -103	"	10 k Ω "
R13, 35,	" -104	"	100 k Ω "
36, 53	"	"	
R14,	" -334	"	330 k Ω "
R15, 17, 25,	" -471	"	470 Ω "
31, 57	"	"	
R16, 18	" -332	"	3.3 k Ω "
R19, 32, 33	" -222	"	2.2 k Ω "
R20, 59	" -561	"	560 Ω "
R21	" -472	"	4.7k Ω "
R22, 24	" -101	"	100 Ω "
R23	" -470	"	47 Ω "
R26	" -560	"	56 Ω "
R28, 42, 43	" -102	"	1 k Ω "
R29, 38, 54	" -183	"	18 k Ω "
R30	" -473	"	47 k Ω "
R34	" -273	"	27 k Ω "
R40, 41	" -682	"	6.8 k Ω "
R50, 51	" -562	"	5.6 k Ω "
R58	" -184	"	180 k Ω "
R60	" -680	"	68 Ω "
R61	" -152	"	1.5 k Ω "
R62	" -470	"	47 Ω "
R64	QRD144J-155S	"	1.5 M Ω 1/4 W
L03, 07	VQB012B-309	Ferrite Core	
		Antenna Ass'y	
CN01	QMV5005-003	Connector	
CN02	E04365-004	Plug Ass'y	

LED P.C. Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks
IC605	VMW3203-001	P.C. Board	
D610	LB1416S	I.C.	
D611—616	HZ6C3	Zener Diode	
CN607	SLB-26UR50F154	L.E.D.	
	QMV7008-004	Connector	For Main
CN608	" -003	"	"
CN609	" -006	"	For SEA
C449, 549, 450, 550	QEK41HM-105	E. Capacitor	1 μ F 50 V
C626	QEK41CM-106	"	10 μ F 16 V
C627	QEK41EM-475	"	4.7 μ F 25 V
C628	QEK41AM-336	"	33 μ F 10 V
C632	QET41AR-477	"	470 μ F "
C459, 559	QCF11HP-472	C. Capacitor	0.0047 μ F 50V
R440, 540, 448, 548	QRD144J-562S	C. Resistor	5.6 k Ω 1/4 W
R446, 546	" -223S	"	22 k Ω "
R447, 547	" -103S	"	10 k Ω "
R623	" -183S	"	18 k Ω "
R624	" -104S	"	100 k Ω "
R625, 626, 627, 628, 629	" -471S	"	470 Ω "
R630, 638	" -101S	"	100 Ω "
R631	" -271S	"	270 Ω "
R635	" -153S	"	15 k Ω "



Power P.C. Board



⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

JVC S73HB
VMW 3208-001

B610

R659
R459

D403
D404

D503
D504

J608

S609

CN611

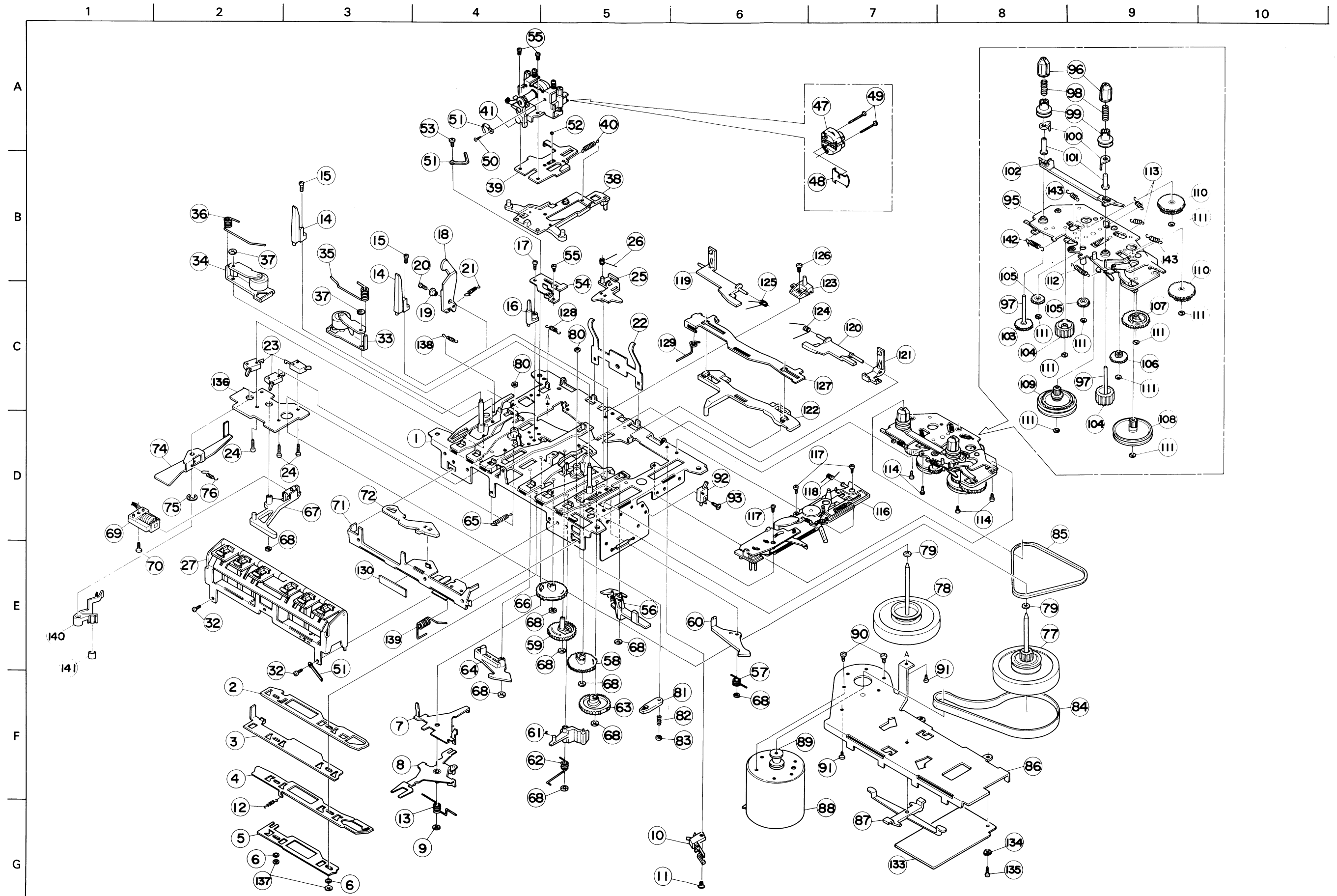
T01

Ref. No.	Parts No.	Parts Name	Remarks
J608	VMW3208-001	P.W. Board	
S609	QMC9014-006	DIN Jack Ass'y	
D403, 503,	QSP2210-061	Push Switch	
404, 504	MA165	Si. Diode	
R459, 559	QRD141J-223S	C. Resistor	22kΩ 1/4W
CN611	QMV5004-011	Plug Ass'y	

Ref. No.	Parts No.	Parts Name	Remarks
△ J601	VMW2203-101	P.C.Board	PC-200LB
△ J602	QMA1221-004	Ext. Batt. Jack	
△ S601	QMC0262-002UBS	AC Socket	PC-200LB
△ "	QSS2325-104BS	AC Switch	PC-200L/LD
	QSS2325-104	"	
△ T601	VYH5509-001	AC Bracket	
△ "	SDST2606Z	Screw	PC-200LB
△ "	VTP09N2-12FBS	Power Trans.	PC-200L/LD
	VTP09N2-12F	"	
△	GBSF4020Z	Screw	for Trans.
△	QMF51A2-3R15BS	Fuse	PC-200LB
△	QMF51C3-3R15	"	PC-200L/LD
	A44594-002	Fuse Clip	
△ D601-604	U08B-F	Si. Diode	
		"	
D605	11E1-F		
C601-604	QCF11HP-223	C. Capacitor	0.022 μF 50 V
C636	QCC11EM-154	C. Capacitor	0.15 μF 25V
	VND4003-052	Fuse Label	PC-200LB
Direction P.C.B.			
△ D619~620	SLB-26UR50F	LED	
D621	MA165	Si. Diode	
△ R639	QRD141J-222S	C. Resistor	2.2kΩ 1/4W

Ref. No.	Parts No.	Parts Name	Remarks
D03, 05	VMW2185-302B LN224RP	P.C. Board LED	

Mechanical Component Parts



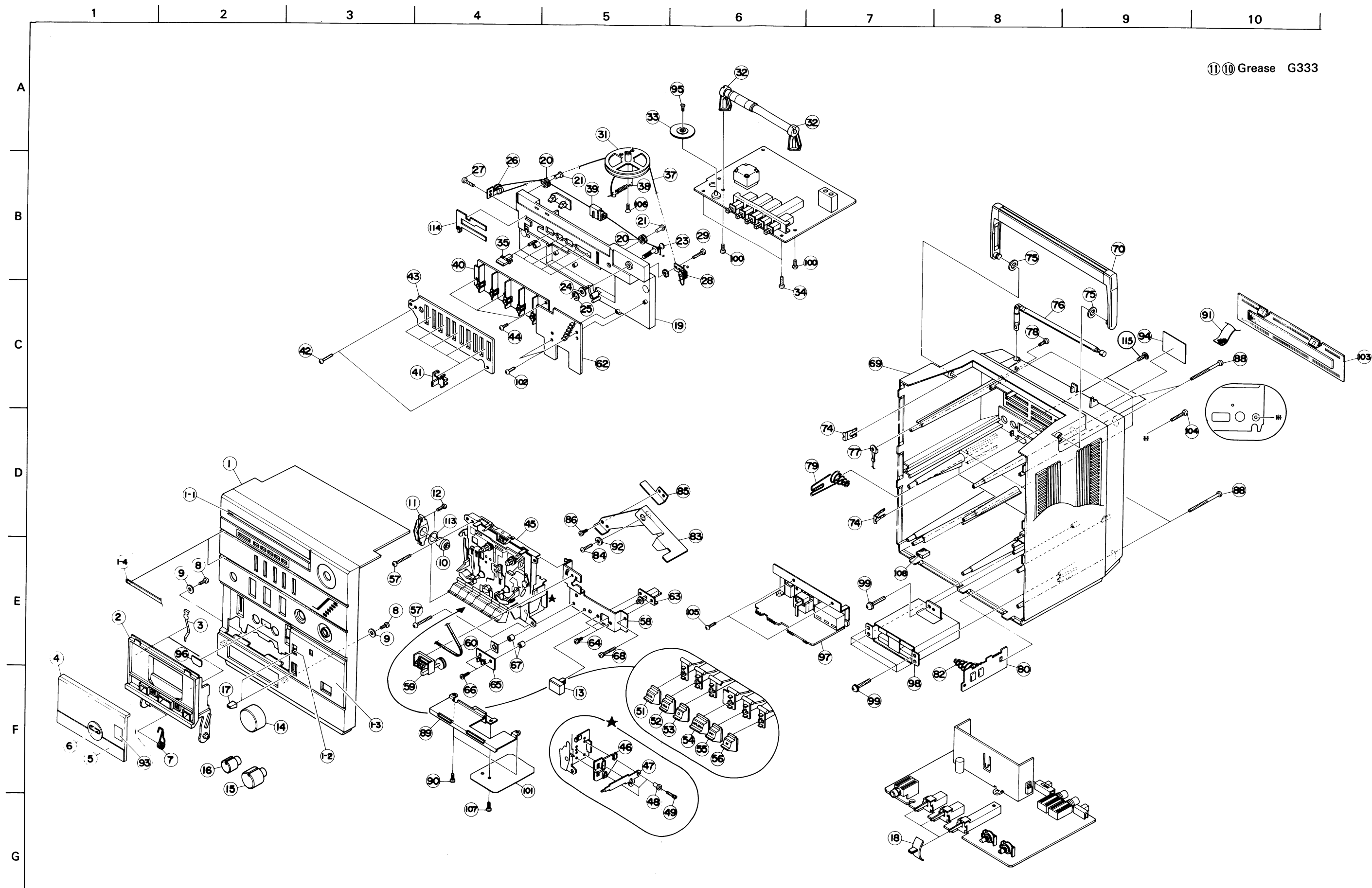
Mechanical Component Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	VKL1223-00C	Chassis Base Ass'y		1
2	VKL3448-001	FR Switch Cam		1
3	VKL3449-001	Motor Switch Cam		1
4	VKL3450-001	Lock Cam		1
5	VKL3451-002	MS Cam		1
6	Q03093-631	Washer		2
7	VKL5421-002	C.R. Lever (B)		1
8	VKL5422-001	Direction Lever Ass'y		1
9	REE1500	E. Ring		1
10	VSH1130-001	Leaf Switch		1
11	SPSH2040M	Mini Screw		1
12	VKW3002-127	Tension Spring		1
13	VKW4413-001	C.R. Lever Spring		1
14	VKS4600-001	Cassette Guide		2
15	SPSH2040M	Mini Screw		2
16	VKS4541-001	Guide Post		1
17	SPSH2080M	Mini Screw		1
18	VKS4542-001	Lock Arm		1
19	VKH3001-056	Flange Collar		1
20	LPSP2005Z	Screw	Lock Arm	1
21	VKW3002-128	Tension Spring	Lock Arm	1
22	VKY4300-001	Pack Spring		1
23	VSH1123-004	Leaf Switch		3
24	SPSH1755M	Mini Screw		3
25	VKS3163-001	Auto Safety Lever		1
26	VKW3008-003	Torsion Spring		1
27	VKL3452-00G	Button Frame Ass'y		1
32	SPSH2025M	Mini Screw	Bracket Frame	2
33	VKP3000-00D	Pinch Roller Arm Ass'y	Forward	1
34	" -00E	"	Rewind	1
35	VKW4415-002	Pinch Roller Spring	Forward	1
36	VKW4416-002	"	Rewind	1
37	VKZ4004-002	Special Washer		2
38	VKZ3108-002	Slide Base (1)		1
39	VKL5423-001	" (2)		1
40	VKW3002-129	Tension Spring	Slide Base	1
41	VKL3454-00D	Head Mount Base Ass'y		1
47	VGH0425-514	R/P & E. Head Ass'y		1
48	VKZ4216-001	Wire Stopper		1
49	VKZ4223-001	Head Screw		2
50	SPSH2018M	"		1
51	VKZ4001-013	Wire Clamp		3
52	T41615-004	Steel Ball		1
53	SPSH2025M	Mini Screw		1
54	VKY4301-001	Head Base Spring		1
55	SPSH2025M	Mini Screw		3
56	VKS4544-00D	Direction Trigger Ass'y		1
57	VKW3008-002	Torsion Spring		1
58	VKR3109-002	Cam Gear (A)		1
59	VKR3110-002	" (B)		1
60	VKS4546-002	C.R. Lever (C)		1
61	VKS4591-00B	C.R. Trigger Ass'y		1
62	VKW4409-001	C.R. Trigger Spring		1
63	VKR3111-002	C.R. Cam Gear		1
64	VKS4548-001	Play Lever		1
65	VKW3002-131	Tension Spring		1
66	VKR3112-002	Play Cam Gear		1
67	VKS4549-004	MS Lever		1
68	VKZ4004-002	Special Washer		9
△ 69	VGP0704-002	DC Solenoid		1
70	SPSH2080M	Mini Screw		1
71	VKL3496-001	Rec. Slide Bar		1
72	VKS4550-001	Rec. Select Lever		1
74	VKL5512-001	Rec. Lever		1
75	REE3000	E. Ring		1

△ Parts are safety assurance parts. When replacing those parts, make sure to use the specified one.

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
76	VKW3002-140	Tension Spring	Rec. Lever	1
77	VKF3128-00A	Flywheel Ass'y		1
78	VKF3127-00A	"		1
79	Q03093-828	Washer		2
80	" -522	"	Oil Cut	2
81	VKS4552-004	Pause Lock Cam		1
82	VKW3001-122	Comp. Spring		1
83	VKZ4004-002	Special Washer		1
84	VKB3001-021	Capstan Belt		1
85	VKB3000-070	Belt		1
86	VKL3497-001	F.M. Bracket		1
87	VKS3171-001	Thrust Plate		1
△ 88	MMI-6A2HUA	Motor		1
89	VKR4317-001	Motor Pulley		1
90	SPSH2630M	Mini Screw		2
91	SPSH2025M	"		2
92	VSH1123-005	Leaf Switch		1
93	VKZ4218-001	Special Screw		1
95	VKL2195-00A	Reel Disk Bracket Ass'y		1
96	VKR3113-001	Reel Feather		2
97	VKH3012-024	Shaft		2
98	This DWG.	Comp. Spring		2
99	VKR4331-001	Cont. Pulley		2
100	VKS4553-001	Auto Lever (1)		2
101	VKS4554-001	Bushing		2
102	VKS4555-001	Auto Stop Bar		1
103	VKR4332-001	Reel Gear (R)		1
104	VKR4333-001	" (F)		1
105	VKR4334-001	F/R Gear (2)		2
106	VKR4335-001	Middle Gear		1
107	VKR4336-001	Cam Gear		1
108	VKR4337-003	Main Pulley		1
109	VKR4338-00C	Main Pulley Ass'y		1
110	VKR4340-00B	Take-up Gear Ass'y		2
111	VKZ4004-013	Special Washer		9
112	VKW3002-142	Tension Spring	Rew. Take-up	1
113	VKW3002-151	"		2
114	SPSH2025M	Mini Screw		3
116	VKS2124-00D	Select Unit Ass'y		1
117	SPSH2025M	Mini Screw		3
118	VKW3006-090	Torsion Spring	Rec. Safety	1
119	VKS3174-001	Rec. Safety (L)		1
120	VKS3175-001	" (R1)		1
121	VKS4578-002	" (R2)		1
122	VKS3177-001	Head Bar		1
123	VKS4568-001	Center Block		1
124	VKW3006-087	Torsion Spring		1
125	" -086	"		1
126	SPSH2025M	Mini Screw		1
127	VKL3458-002	U-Rec. Bar		1
128	VKW3002-133	Tension Spring	U-Rec. Bar	1
129	VKW4414-001	Torsion Spring	"	1
130	F00303-34	Spacer		3
133	VMW3205-001	P.C. Board		1
134	WBS2000N	T. Lock Washer		1
135	LPSP2005Z	Screw		1
136	VMW4671-001	P.C. Board	Leaf Switch	1
137	VKZ4004-002	Special Washer		2
138	VKW3002-156	Tension Spring	SE Bar	1
139	VKW4453-002	Rec. Spring		1
140	VKS3189-001	Brake Lever		1
141	VKZ4129-001	Brake Rubber		1
142	VKW3002-142	Tension Spring	Rew.	1
143	VKW4447-001	Tension Spring		2
	V44743-001	MONOHIRA	for Wire Band	4

Enclosure Assembly Parts



Enclosure Assembly Parts List

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

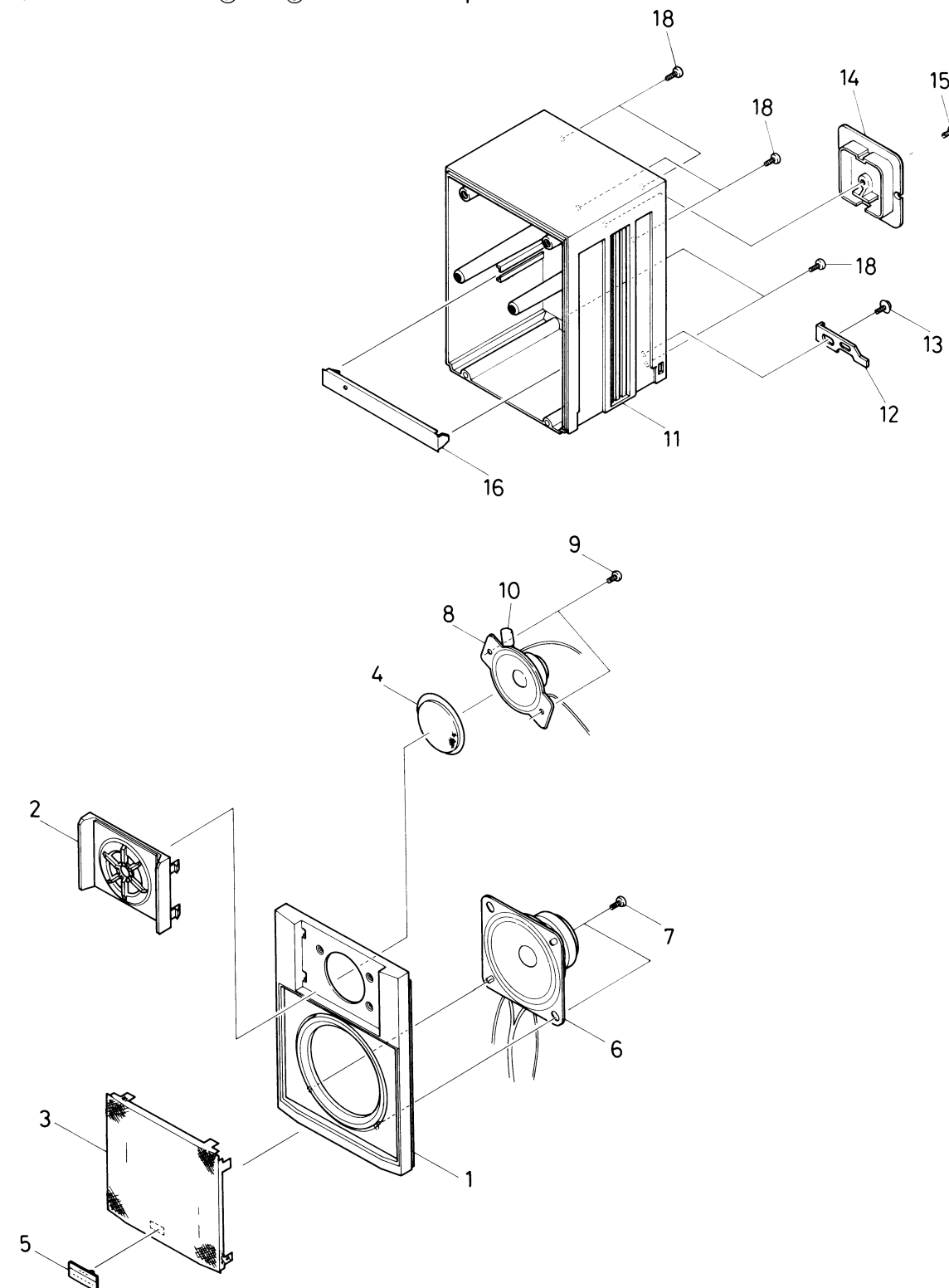
⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	1, 1-1~1-4	ZCPCR200Y-CBF	Front Cabinet Ass'y		1
	1	VJC1324-004	Front Cabinet	PC-200L/LB	1
	"	" -005	"	PC-200LD	1
	"	" -006	"	PC-200L/LB/LD(BLK)	1
	1-1	VJK4179-003	Lens		1
	1-2	VYH5415-002	Function Lever		1
	1-3	VJD3453-00D	Front Panel	PC-200L/LB(SLV)	1
	"	" -00E	"	PC-200L/LB/LD(BLK)	1
	1-4	VJD4635-003	Spacer		2
	2	VJT2089-001	Cassette Door		1
	3	VKY4180-001	Cassette Spring		2
	4~6	ZCPCR200Y-	Cassette Lid ass'y		1
	4	VJT3125-001	Cassette Lens		1
	5	VJD4784-001	Lens Plate	PC-200L/LB(SLV)	1
	"	" -002	"	PC-200L/LB/LD(BLK)	1
	6	VJD4756-001	Mark Plate	PC-200L/LB(SLV)	1
	"	" -002	"	PC-200L/LB/LD(BLK)	1
	7	VKW4441-001	Door Spring		1
	8	SBSF2610Z	Tap. Screw	for Door	2
	9	Q03091-130	Washer	for Door	2
	10	VYH5133-001	Gear		1
	11	VYH5134-001	Damp Holder		1
	12	SBSF2610Z	Tap. Screw		2
	13	VXP3084-002	Push Knob	for Power	1
	14	VXL4164-002	Tuning Knob	for Tuning	1
	15	VXL4165-001	Volume Knob	for Volume	1
	16	VXL4166-001	Knob	for Balance	1
	17	VXQ4061-001	Lever Cap		2
	18	VXQ4057-004	Select Knob	DOLBY NR/TAPE/FUNCTION	3
	19	VYH1136-001	Chassis		1
	20	VYH4032-001	Roller		2
	21	VYH4034-002	Stud		2
	23	VYH5482-001	Tuning Shaft		1
	24	Q03093-815	Washer		1
	25	REE5000	E-Ring		1
	26	VYH5480-00A	Roller Bracket (A)		1
	27	SBSF3010Z	Tap. Screw	for Roller Bracket	1
	28	VYH5065-00A	Roller Bracket (B)		1
	29	SBSF3010Z	Tap. Screw	for Roller Bracket	1
	30	—	—		—
	31	VYH3202-001	Drum		1
	32	VYH4803-001	Ferrite Antenna Holder		2
	33	VXL4187-001	Knob		1
	34	SBSF3010Z	Screw		2
	35	VXP4274-002	Push Knob		5
	37	VHR22K9-05AT	Dial Cord	835 mm	1
	38	50153-3	Spring		1
	39	VJN4072-001	Pointer		1
	40	—	SEA P.C.B. Ass'y		1
	41	VXS4117-002	Slide Knob		5
	42	SBSF3010Z	Screw	for SEA Holder	2
	43	VYH3265-001	SEA Holder		1
	44	SBSF2606Z	Screw		3
	45	—	200 Y Mecha. Ass'y		1
	46	VYH5418-001	Slider		1
	47	VYH5419-001	Lever		1
	48	VKZ4028-001	Special Screw		3
	49	—	—		—
	51	VXP3103-007	Button	STOP	1
	52	" -008	"	REW	1

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	53	" -009	"	REC	1
	54	" -0010	"	PLAY	1
	55	" -0011	"	FF	1
	56	" -0012	"	PAUSE	1
	57	GBSF3020Z	Screw	for Mecha. Sub Ass'y — Rear Cabinet	3
	58	VYH3270-001	Counter Holder		1
	59	VKC5172-001T	Counter		1
	60	VKB3000-071	Belt		1
	62	—	LED P.C.B. Ass'y		1
	63	QSP0210-016	Power Switch	S602	1
	64	LPSP3006Z	Screw	for Power Switch	2
	65	—	LED P.W. Board	for Direction	1
	66	SDST3008Z	Screw	for "	2
	67	VKH3000-037	Collar		2
	68	GBSF3020Z	Screw		1
	69	VJC1325-004	Rear Cabinet	PC-200L/LB(SLV)	1
	"	" -005	"	PC-200LD	1
	"	" -006	"	PC-200L/LB(BLK)	1
	70	VJH4036-00E	Handle Ass'y		1
	74	VYH5013-002	Spring		2
	75	Q03093-509	Washer		2
	76	VJA3006-00C	Telescopic Antenna		1
	77	VYH5012-002	Terminal Lug		1
	78	SDSP3012R	Screw	for Antenna	1
	79	V43209-004	Spring		1
	80	—	P.W. Board	for Battery	1
	82	VYH5483-001	Spring		2
	83	VYH5475-001	REC Lever		1
	84	SBSF3016Z	Tap. Screw	for REC Lever	1
	85	VYH5476-001	REC Plate		1
	86	LPSP3006Z	Screw	for REC Plate	1
	88	SBSF3040Z	"	for Rear — Front	6
	89	VKL5552-002	Mecha. Bracket		1
	90	SDST3006Z	Screw		2
	91	V41583-3	Tape		1
	92	Q03091-104	Spacer		1
	93	VND4090-005	Caution	for Cassette Door	1
	94	VYN7015-004	Name Plate	PC-200 LB	1
	"	" -005	"	PC-200 L	1
	95	SSSP2004Z	Screw	for Knob	1
	96	VJD4005-002	Reflection Plate		1
	97	—	Power Supply P.C.B.		1
⚠	98	VTP09N2-12FBS	Power Transformer	PC-200LB	1
⚠	"	VTP09N2-12F	"	PC-200L/LD	1
	99	GBSF4020Z	Screw	for Power Trans.	3
	100	SBSF3010Z	"	for F. Antenna	2
	101	VYH5532-001	Shield Plate	for Mecha.	1
	102	SBSF2606Z	Screw	for LED	2
	103	ZCPCR200Y-BCA	Battery Cover Ass'y		1
	104	SDSP3012R	Screw		1
	105	SBSF3010C	"		2
	106	SSSP2608Z	"		1
	107	SDST3006Z	"		1
	108	VYSR110-004	Spacer	for R. Cabinet	1
	113	Q03091-206	"	for Damper (Washer)	1
	114	VYH5516-00	Shield Ass'y	PC-200W	1
	115	SDSF3012R	Screw	for Speaker terminal	2
		VND4068-001	Label	PC-200JW	1
		QHX2075-001	Wire Holder		—

Exploded View, Wiring Connection and Parts List for Speakers

Replacement of speaker (Refer to the exploded view)

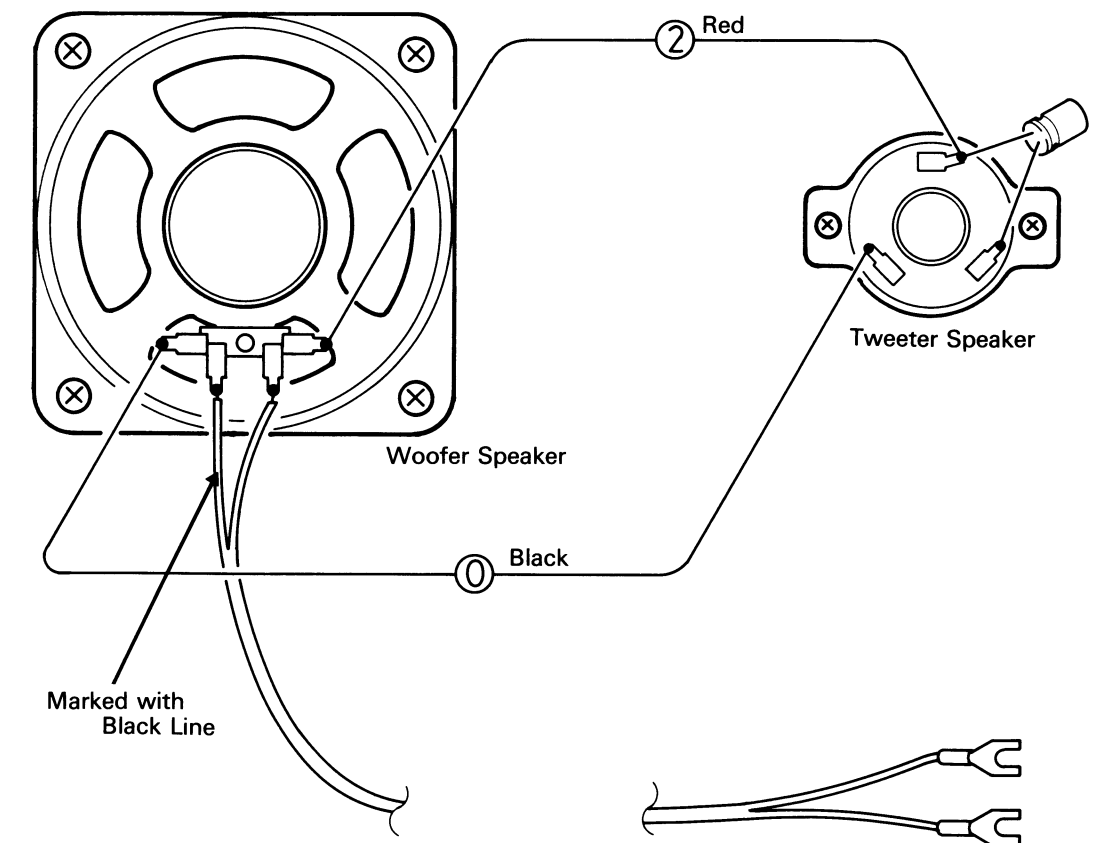
1. Remove a screw ⑮ then cover ⑭.
2. Remove 6 screws ⑮ then Rear panel ⑪.
3. Remove 4 screws ⑦ and ⑨ to take out the speaker.



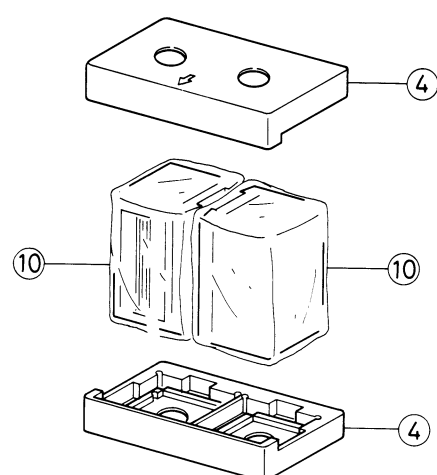
Speaker Ass'y Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	VJC1326-001	Front Panel	Left	1
"	" -002	"	Right	1
2	VJD3460-001	TW. Escutcheon		1
3	VJD3461-001	Punching Panel	for Woofer	1
4	VJD4783-003	"	for Tweeter	1
5	VJD4636-001	Mark		1
6	EAS12P262S	Speaker	Woofer	1
7	SBSF3008Z	Screw	for Woofer	2
8	EAS5PH04ST	Speaker	Tweeter	1
9	SBSF3008Z	Screw	for Tweeter	2
10	VCE0002-225	N.E. Capacitor		1
11	VJC1327-003	Rear Panel	Left	1
"	VJC1328-003	"	Right	1
12	VYH5412-001	Lever	Left	1
"	VYH5413-001	"	Right	1
13	GBSF3010R	Screw	for Lever	1
14	VJD4747-001	Cover		1
15	SBSF3012N	Screw	for Cover	1
16	VYH5514-001	Stay		1
17	VMP0034-001A	SP. Cord		1
18	SBSF3012N	Screw		6
	VYNA424-002	Name Plate		1
	VJF4003-006	Foot		2
	VYSA1R4-043	Spacer		1

Wiring Connections

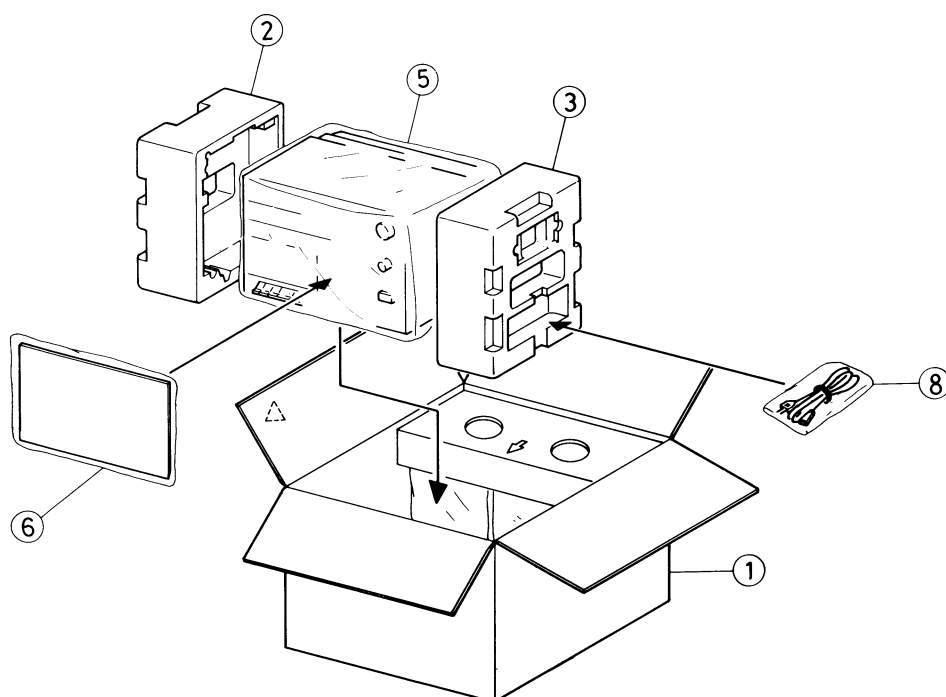


Packing



Position of controls and switch knobs at remarked packing renewed

POWER switch OFF
 BAND SELECT switch AM 600 kHz
 MODE (stereo/mono) STEREO/ON
 SEA GRAPHIC EQUALIZER Center
 DOLBY NR switch OFF
 TAPE switch NORMAL
 FUNCTION switch TAPE
 BALANCE Center
 COUNTER 000
 REVERSE MODE 
 VOLUME Center



Packing Parts List

	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	1	VPD7015-J04	Carton	PC-200LB	1
	"	" -J12	"	PC-200L	1
	"	" -J07	"	PC-200LD	1
	2	VPH1296-001	Cushion	Left	1
	3	VPH1297-001	"	Right	1
	4	VPH1298-001	"	S.P. System	1
	5	VPE3004-021	Poly Bag	for Unit	1
	6	" -007	"	for Instruction Book	1
	8	QPGA012-01505	"	for Power Cord	1
	10	VPE3004-016	"	for Speaker	1
	11	VPZ4001-001	Serial Ticket		2
		VND4088-005	Sheet		2

Accessories

	Parts No.	Parts Name	Remarks	Q'ty
	VNM0940-301	Instruction Book		1
	VNF0940-001	Feature Sticker		1
	BT20060	Guaranty Certificate	PC-200LB	1
	BT20066	"	PC-200LB/LD	1
	BT20065	"	PC-200LD	1
	QZL1002-003	Warning Label	PC-200LB	1
	31465-18	Mark	PC-200LB	1
	QMP9017-009BS	Power Cord	PC-200LB	1
	QMP3950-183	"	PC-200L/LD	1

JVC

VICTOR COMPANY OF JAPAN, LIMITED.

RADIO & RECORDING MACHINE DIVISION 10-1, 1-chome, Ohwatari-cho, Maebashi-city 371, Japan